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THE
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OF THE
MEDICAL AND PHYSICAL SCIENCES.

CONDUCTED BY
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THE NEW VOLUME.

The present No. completes the 1st Volume of this Journal. We take this occasion to present to our readers, the thanks of the Editors for the generous support extended to them thus far, and to solicit from them a continuation of their friendly aid, in behalf of the New Volume. Our expectations in reference to the circulation of the Journal have been fully realized. We set out with the determination to make the Journal a faithful and independent Record of the present state, and progressive advancement of the several departments of Medicine—aiming to meet the wants and merit the approbation of our professional brethren in the South and South-west ; to what extent we have attained these objects, we leave our friends to decide.

It is needless to state that the hope of pecuniary compensation did not enter into our calculations : the subscription, as it exceeds the expense of publication, will be applied to enlarging and otherwise improving the Journal. We earnestly invite our friends to exert their influence in behalf of the new volume. If each could secure a remittance for an additional subscriber by the first of January, we would be prepared at once to materially enlarge and improve the work, without increasing the subscription price. We are not disposed to make extravagant promises, but appeal to the past as evidence of our determination to meet every just expectation for the future.

Brethren of the Profession, we hope you will feel equally interested with us in this enterprise, and lend your earnest co-operation in promoting the objects and interests of the Southern Journal.

The following is a list of Journals received in exchange, with the names of the Editors and places where published.

Boston Medical and Surg. Journal, (weekly.) J. V. C. Smith, M.D.

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American Journal of Dental Science, (quarterly.) Drs. C. A. Harris, A. A. Blandy, and A. S. Piggot.—Baltimore. Md.

American Lancet, (monthly.) Drs. H. and A. Nelson.—Plattsburg, N. Y.

Stethoscope (monthly.) P. Claiborne Gooch, M. D.—Richmond, Va.

Dental News Letter, (quarterly.) Drs. J. D. White, and J. R. McCurdy.—Philadelphia, Pa.

New York Dental Recorder, (monthly.) Drs. C. C. Allen and A. Hill.
Memphis Medical Record, (bi-monthly.) Drs. A. P. Merrill, and C. T. Quintard.

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New Orleans Monthly Medical Register. A. F. Axson, M. D.

Western Lancet, (monthly.) Drs. L. M. Lawson and T. Wood.—Cincinnati, O.

Southern Medical and Surgical Journal, (monthly.) L. A. Dugas, M. D.—Augusta, Ga.

British and Foreign Medico-Chirurgical Review, (quarterly.) Republished by S. S. and W. Wood.—New York.

Esculapian, (monthly.) C. D. Griswold, M. D.—New York.

American Journal of Pharmacy. (bi-monthly.) Wm. Prector, Jr.—Philadelphia, Pa.

New Jersey Medical Reporter, (monthly.) Joseph Parish, M. D.—Burlington, N. J.

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Amer. Journal of Insanity, (quarterly.) T. R. Beck. Utica, N. Y.

Charleston Medical Journal and Review, (bi-monthly.) Drs. D. J. Cain and F. P. Porcher.

American Journal of the Medical Sciences. (quarterly.) Isaac Hays, M. D.—Philadelphia.

Virginia Medical and Surgical Journal, (monthly.) Drs. G. A. Otis and H. L. Thomas.—Richmond, Va.

Bickley's West American Review, (monthly.) Cincinnati, O.

New York Scalpel, (quarterly.) Edward H. Dickson, M. D.

N. Y. Journal of Medicine, (bi-monthly.) Drs. Purple and Smith.

Medical Examiner, (monthly.) Drs. F. G. Smith and J. B. Bidle.—Philadelphia, Pa.

Journal of the Franklin Institute, (monthly.) John F. Frazer, assisted by the Committee of Pub. of the F. Ins.—Philadelphia, Pa.

Glasgow Medical Journal, (quarterly.) Glasgow, Scotland.

Half-yearly Abstract of the Medical Sciences. Drs. W. H. Ranking & C. B. Radcliffe, London.—Republished by Lindsay & Blakiston, Philadelphia, Pa.

Peninsular Medical Journal, (monthly.) E. Andrews, A. M., M. D.—Ann Harbor, Mich.

Western Medico-Chirurgical Journal, (bi-monthly.) J. F. Sanford, M. D.—Keokuk, Iowa.

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THE
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DEPARTMENT OF MEDICINE AND SURGERY.

ART. I.—DIET, AS A REMEDIAL AGENT IN THE TREATMENT OF
DISEASE.

It was a quaint maxim of the late Dr. Armstrong, that “rest and starvation are the best tonics in the world.” According to our own experience, a proper diet is at least as important to the successful treatment of disease, as the employment of medicines. So indispensable indeed, is a judicious selection of diet, to the success of any species of medication, that it is difficult in many instances, to determine whether more credit is due to the medicines employed, or to the dietetic management of the case. In fact, no medicine is capable of exerting its beneficial effects, to the fullest extent, and of impressing the system, either locally or generally, to the full measure of its specific virtue, if unaccompanied with the strict observance of a well regulated diet. It is the besetting sin of the large majority of young practitioners, upon their first entrance into practice, to attach an undue importance to the efficacy of medicine, and to overlook or depreciate the value of dietetic treatment. They are too ready to attribute an *absolute* efficacy to the medicines employed, without a due reference to the condition of the general system, which may promote or *antagonize* the peculiar action of medicines, whether addressed to the system generally or locally. It is doubtless owing to this fact, to some extent at least, that the observations and experience of medical writers have led to such widely different and unsat-

isfactory conclusions, as to the value of a given remedy in the treatment of certain forms of disease.

The observations of Sir Wilson Philip, upon the employment of minute doses of Mercury in the treatment of several chronic affections, would naturally tempt the over-credulous young practitioner, to ascribe Sir Wilson's remarkable success in the management of these affections, exclusively to the peculiar efficacy of Mercury; but how few ever have employed this medicine with the same happy results? And why? Doubtless, Sir Wilson Philip was not unmindful of the importance of an accurate enquiry into the peculiarities of each individual case subjected to his treatment, and the influence of habit and diet, in the developement and modification of diseased action, but was quite as careful in selecting and enforcing a judicious diet, as he was accurate in his diagnosis, and persevering in the employment of his favorite remedy.

It is a remark often made by older members of the profession, that the older they grow, the less medicine they give; which, properly rendered, only means, that as their experience in the management of disease accumulates, they are less disposed to overrate the value of medication, and the better prepared to appreciate the importance of a well regulated diet, and the influence of favorable conditions and circumstances adapted to each individual case.

Homœopathy, we all know, is a delusion, so far as it claims to be a rational system of medicine. But whilst we reject the theory, we must admit, that the strict attention to the dietetic management of disease, so scrupulously enforced by the homœopathic practitioner, is worthy of a candid consideration. If homœopathy has achieved any success in curing disease, it is indebted, almost exclusively, to the superior dietetic rules observed, and to the confidence inspired in the mind of the patient, by the comfortable feelings resulting from a strict regulation of the diet. Indeed, this is the true secret of the success of homœopathy in retaining the confidence of many individuals and communities for so long a period of time, and so far outliving the usual term of its kindred delusions.

It is a law in mechanics, that the angle of reflexion is equal to the angle of incidence; that action is invariably followed by a corresponding re-action; in morals, that one extreme is sure to beget its opposite; and a similar law holds good in the history of the science and practice of medicine. The "*juste milieu*,"—the judicious middle ground, is difficult to delineate. The aggregate of the vital forces, in health and disease, in their diversified relations to physical agents, is a complex problem, involving such a variety of propositions, that

the human mind will probably never be competent to its solution. To attain to even a comprehensive view of the subject in all its parts, and to be able to assign to each its just importance, in the use of means for the prevention and cure of disease, must necessarily tax to the utmost, the capacities of the most gifted intellect. Between the two extremes of venacavaism and homœopathy, the medical world has been subdivided into a variety of sects, each basing their doctrine and practice upon some favorite text in the Book of Nature, true in itself, but isolated and detached from its just relation to other truths equally weighty, magnified into a superlative importance, and forced to sustain facts not referrible to it, it has become so interwoven with false opinions, that in the reactionary movement which sooner or later invariably succeeds, its real merit is depreciated, and for a time grossly neglected. Look, for instance, at the theory of Brown. The value of diaphoresis in the treatment of fevers, is admitted by all; but the rapid resolution of febrile phenomena, under a diaphoretic treatment, so fascinated Dr. Brown, with a certain class of medicines, that he forthwith jumped to the conclusion, that fever is essentially a spasm of the extreme vessels, and discarding almost every other species of medication, with the enthusiasm of a monomaniac, he administered antispasmodics and diaphoretics in the most extravagant quantities. The result was, that diaphoretic medicines fell into comparative disrepute. On the other hand, Broussais, struck with the invariable traces, as he imagined, of gastroenteric inflammation, observed in his autopsies of fever cases, conceived the idea that fever is essentially a gastroenteritis; that all that group of phenomena denominated febrile, was directly referrible to intestinal irritation or inflammation; and with this partial and imperfect conception of the essential nature of fever, he framed a theory and system of practice, which, for a time, threatened to annihilate every other form of medical doctrine. The experience of a few years, however, satisfied the profession generally, that the theory itself was inconsistent with the principles of a sound medical philosophy; and that gum water, leeches, and the "*diet absolue*," though valuable in their proper time and place, were wholly unreliable in the management of fevers. But every theory, based upon the "*one idea*," must be necessarily false. Broussais attached too little importance to the efficacy of medicines, and Hahnemann fell into a most grievous blunder, in attributing a potency to medicine, in the ratio of an infinitesimal subdivision of its atoms; and the only merit that can reasonably be claimed for Homœopathy or Broussaism, must be ascribed to the stress laid

upon the importance of a strict dietetic management of disease.

Both, however, it seems to us, erred to some extent even here. Broussais relied upon the "*diet absolue*," without respect to the nature and symptoms of disease,—in every case, at every period of the fever, and under all circumstances, gum water was indiscriminately used. The phantom of gastroenteric irritation, continually haunted his imagination, and he was insensible to the cravings of appetite, or the peculiar instincts of the stomach for any particular article of diet or drink, until the supposed inflammatory condition was relieved. The disciples of Hahneman rely chiefly upon a prescription of such articles of diet or drink, habitually used by their patients, as they suppose favorable to the developement of disease, and partly upon the assumption that certain articles are compatible or otherwise with the legitimate effects of their infinitesimal doses upon the different organs. A globule of lime, operating upon the system through an indefinite period of days, and permeating with metaphysical subtlety the ultimate atoms of the tissues, and stealthily counteracting the poisonous effects of the insidious poison, and driving it from the system, is supposed to be compatible only with a certain quantity and quality of diet. The character of the medicine employed, is made to determine the quality, &c., of the diet, and hence but little discrimination is exercised in selecting the diet, farther than to ensure the fancied compatibility of medicated globules.

It is granted that certain medicines are, therapeutically, more or less compatible with certain articles of diet and drink, and that the efficacy of a remedy is oftentimes increased by judicious diet. But the importance of a strict attention to the dietetic management of a disease, is not derived exclusively from this fact. A higher authority than Hippocrates has declared, that "the blood is the life of the flesh;" and as the chemical elements and physiological character of this fluid, are more or less affected and modified in every departure from a healthy condition of the human system, it is certain that the blood must constitute an important element in many diseases, in fevers, perhaps invariably. The depraved secretions of the skin and mucous surfaces, and of the organs in the three great cavities, present an assemblage of pathological expressions, that determines, to a certain extent, the diagnosis of all febrile diseases; and the value of a given remedy is estimated from its efficacy in altering the secretions of a part, or restoring functional integrity to the different organs. In certain diseases characterized by an undue proportion of the serum of the blood, and a tendency to serous transudation in the several cavities, we ordinarily employ a class of

medicines denominated hydragogues—and in conjunction, or perhaps at a subsequent period of the treatment, we resort to carbonagogues, to depurate the blood, or remove the abnormal accumulation of carbonized materials, and alteratives, or (to use a common expression,) medicines “to improve the secretions,” and this constitutes the ordinary routine of practice in a large majority of diseases. But at the same time that medical men, in their every day practice, thus virtually admit that the condition of the blood is the most important element in disease, how little importance is generally attached to the efficacy of diet as a remedial agent in the treatment of their cases. If it be an object in the treatment of fevers, to remove, by means of different medicines, the noxious and effete materials which had accumulated in the blood, as a “*sine qua non*” to the cure, may we not, at the same time, and in conjunction with a judicious course of medication, accomplish the object more effectually, by prescribing such articles of diet and drink, as will co-operate with the medicines in restoring the blood to its normal condition. Certainly a healthy molecular constitution of blood greatly depends upon the quality of the alimentative matter.

Notwithstanding the unjust odium into which the doctrine of the humoral pathologists has fallen, from the extravagant opinions entertained by the humoralists themselves, and the abuses of mercenary quacks, there is probably more real importance in a correct knowledge of the character of the blood, in health and disease, than the most sanguine humoralist had conceived. Why is it, that in a certain form of disease, the patient should express so strong a preference for a particular description or article of diet or drink above all others? And why should this same individual, laboring at a subsequent time under a different species of disease, crave an opposite or different kind of diet and drink? An ague patient, for instance, almost invariably relishes oysters, beefsteaks, and other highly nutritious animal diet, rich in fibrinous matter, while the same individual, in an attack of typhoid fever loathes these articles, with almost every other species of solid animal food, and selects sour buttermilk? It is not sufficient to say, that the system in the one case needs a richer blood, and that in the other, the fibrinous portion of the circulation requires to be reduced; this is not a satisfactory statement even of the fact itself. Why should an individual, who was last week eating freely of ham and beef, and to-day the subject of typhoid fever, feel a disgust at the bare suggestion of such a diet, and crave an article of diet or drink which perhaps he has no relish for in health? To say that the sense of taste is

modified or impaired by the fever, or that such an article is more grateful to the stomach of a typhoid fever patient, is the mere statement of the fact, but offers no satisfactory solution of the cause. An infant of twelve months has been the subject of cholera infantum for the last four months, and is reduced to an extreme of anæmia and emaciation that is scarcely compatible with the phenomena of organic life. Week after week, it has been subjected to another and a different course of medication and diet, until medicines have almost entirely ceased to exert any beneficial influence upon the stomach and bowels; food, of the mildest and most digestible quality, is passed through the bowels in an undigested state, and the medical attendant concludes that the functions of digestion and assimilation are so far impaired, that the little patient must inevitably die of inanition. At this juncture, he casually learns from the nurse, that for several days or weeks past, the child has been in the habit of crying at the sight of pine apple cheese, an article of diet, of all others, perhaps, the most unsuitable for an infant, and difficult of digestion by even the strongest stomach. As an extremely hazardous experiment, but justifiable under the circumstances of the case, he consents that the little patient should be freely indulged with the cheese, and forthwith a stomach, which for months past could not digest the mildest, and, under ordinary circumstances, articles of diet the most easily assimilated, readily digests this strong diet, the bowels begin to improve, and the patient, to the surprise of all parties, is suddenly snatched from the very jaws of death, and rapidly restored to health and flesh. Now, this is no fancy case, and the experience of many physicians could furnish many cases similar, if not more remarkable even, than the one described.

There are two points of much interest in the above case, which, however, we do not claim to be able to solve to the satisfaction of the reader: Why did the child crave the cheese in preference to any other species of aliment, and how could a stomach enfeebled by constant medication, and impaired by a protracted disease, readily digest and assimilate an article of diet ordinarily so difficult of digestion? The fact is certainly diametrically opposed to the commonly received doctrines and practice of the medical profession, and strangely inconsistent with our general experience. There seems to be a species of instinct in such cases, similar to what we observe in animals, as they select certain species of herbs and grass, and reject others. But where does this instinct reside, in the stomach, the bowels, the brain, or the blood? What faculty instigates the sug-

gestion, that this or that species of nutritive matter is required by the system? So far as the case of the child is concerned, it could not have been because it had been habitually fed upon cheese, or because the cheese, as a therapeutic agent, possessed any efficacy in curing cholera infantum. In a great majority of such cases, in the earlier stages at least, and even in the ordinary condition of infantile health, no article of diet would more likely disturb the stomach and bowels.

The only rational conclusion we can deduce from such facts is, that this instinct, (if it be lawful so to term it,) is an expression of the elective affinities of the blood for certain ultimate or proximate elements contained in particular kinds of alimentative material, which are required by the blood, to restore the defective or imperfect protein element, and establish the normal relation of its constituent parts. In the case of the child with cholera infantum, had the cheese been withheld, in all probability, death would have been inevitable. The physiological character of the blood had been so changed and modified by disease, and the failure of the organs of assimilation to supply the elements requisite to a normal hematosis, that the vital forces were on the eve of suspension. Whether hematosis be the function of the inner tunic of the blood vessels, or endangium, as Dr. Dewees terms it, or an effect of the chemico-vital action of atmospheric air upon the chyle, through the medium of the lungs, aided by the assimilating force of the blood globules, is a physiological problem yet to be solved; recent observations, however, seem to have established the fact, that there is in the circulation of every individual in health, an amount of imperfectly assimilated chyle, varying in quantity in different individuals subject to elimination by the several depurating organs, as unsuited to the molecular regeneration of the tissues, and yet not strictly effete matter, as the products of the destructive metamorphosis of the tissues. Now the question is, whether this nondescript chemical element results from incomplete or defective hematosis, or imperfect chylification. In many cases, it may be, that, in the absence of a supply of the proper elements, from primary assimilation, the *chemico-vital elective* affinities of the blood are competent to appropriate this imperfectly elaborated nutritive material, and even to re-arrange and combine the products of secondary assimilation, and restore the blood to a comparatively normal condition.

J. W. KING.

[TO BE CONTINUED.]

ART. II.—REMEDY FOR INFANTILE ASPHYXIA.

One pleasant afternoon, not long ago, I was sitting quietly in my office, when my cogitations were interrupted by the hasty steps of a large, fresh, Yankee looking gentleman, who said his wife was suffering very much and wanted a Doctor. I followed him, and on the way, was informed by the messenger that he was the husband of the sufferer, and had only been married a few days—an interesting patient thought I, and probably quickened my steps. On arriving at the house, I was conducted into the room, where I soon became apprehensive that the woman, though just married, was absolutely in child birth, and that my services as accoucher, would be brought into immediate requisition. After making the usual examination, and becoming thoroughly satisfied that my conjecture was well founded, and that it was the first presentation, I sat down to await the issue, and was not long detained; for immediately very severe pain supervened, and a foetus was expelled. Without however, any other vital indication than bodily warmth, and very feeble, almost indistinct, circulation in the cord.

The ordinary means, such as stimulating baths, inflating the lungs, friction, &c., were used, probably a half hour or more, without any apparently beneficial effect. At this crisis, the father, (or man who should have been,) entered the room, bearing upon his breath the odor of alcohol. I called to him and told him to come and apply his lips to those of the child, and gently blow into its mouth. He looked astonished, and exclaimed: What, me, sir!! Yes sir, said I, you are just the man, come on. He did so. He inflated the lungs and I expelled the air repeatedly; and together we at length succeeded in resuscitating the child, which I am constrained to regard as wholly attributable to the stimulus of the alcoholic inspiration. It is at any rate worthy of a trial, after the ordinary means have failed; and in the absence of a drunken husband, we suggest that the accoucher inhale the vapor of alcohol, or spirits of camphor, immediately previous to inflating the lungs of the child.

W. P. JONES.

ART. III.—CLAIMS OF THE MEDICAL SCIENCES UPON THE DENTAL PROFESSION.

That Dental Surgery, considered as a Science, embracing a knowledge of the nature and treatment of a part of the human system, is truly an integral part of Medicine, would naturally be suggested as self-evident ; and that an acquaintance with the medical sciences is essential for its proper cultivation, would seem to require no demonstration. But since, in *practice*, this specialty has been disconnected from medicine, being, moreover, frequently exercised without an adequate knowledge of the sciences which go to constitute the latter, both of which circumstances have tended to convey an erroneous impression in regard to its true relationship and dependence, we think it not inappropriate to offer a few remarks under the above caption.

We need not dwell upon the importance of Anatomy and Physiology. Every one must, upon a moment's reflection, perceive that they are absolutely indispensable to scientific dentistry. That the human frame is but a congeries of organs, mutually dependent upon each other, that these are but so many parts, making up in the totality, the complicated machinery of the whole, and that parts the most remote, are connected by sympathies the most intimate and indissoluble, will suffice to show that a correct understanding of any part must comprehend, and be based upon, an acquaintance with those parts with which it is thus connected—that a knowledge of the structure and functions of the organism as a whole, is essential to a full comprehension of any class of organs ; that, in short, the anatomy and physiology of the general system must be studied, in order to learn the nature, relations and functions of the dental system. This is conceded by all scientific dentists, whatever may be their differences of opinion in regard to some of the other medical branches.

The fundamental or general Principles of Medicine are equally indispensable, as guides in special treatment, and in no department more so than in that of Dental Surgery—a position which is also beyond question. If this be so, it should follow that those branches from which such principles have been evolved, are also essential. The principles of medicine, properly so called, can be adequately acquired only by a survey of the details of the several branches of the science. Indeed the chief utility of medical schools and medical journals, consists in the inculcation and elucidation of principles *by*

of such details ; and it were as impossible to communicate the former intelligibly, or impress them upon the mind, without demonstrations derived from the latter, as to teach mathematics by a general statement of the "rules" which govern in the solution of its various problems.

But without designing an argumentative discussion, we propose merely to suggest some of the claims and advantages of those medical branches which appear to have been most neglected by the dental profession.

The science of *Chemistry* eminently deserves the attention of the dentist. In view of the advantages which might naturally have been expected to flow from its cultivation, no branch of medicine has been more generally underrated, on the part of the profession, than this. Until recently, it had not a place even in the institutions proposing to teach a thorough collegiate system of dental science. Yet chemistry is one of the fundamental bases of all medicine ; it lies at the very foundation of every specialty, and of none more strictly so than of this.

The claims of chemistry upon the dental surgeon, present themselves in two points of view : first, as a means of acquiring a correct knowledge of the principles of his science, and secondly, as a guide in the practical application of those principles.

First. A knowledge of chemical forces is essential to a comprehension of vital phenomena. This is the key which admits us to the hidden recesses of organized structure—the light which reveals to our inspection the secret processes of life. Chemistry is inseparably allied to physiology ; without it, the latter, as a science, could scarcely exist, since it is the province of this to examine, first, into the nature of the chemical elements which go to constitute and sustain organized tissues, and, secondly, to investigate the phenomena exhibited by such organizations,—phenomena not only analogous to those which are purely chemical, but intimately blended with, and dependent upon them. Chemistry has to do with all the vital processes and functions, from the development of the germ-cell to intellect. For example, the first germ is but the condition by the means of which chemical elements are brought into combination, so as to produce an organized structure. *Nutrition* is the result of chemical affinities between the component parts of the system and the nutritious particles of matter derived from food, these particles having been prepared for introduction into the circulation, and through it to the remotest tissues, by the *chemical* process of

digestion. The function of respiration is a means for promoting chemical processes by which the blood in the lungs is freed from its carbon and re-vitalized, as it were, by a supply of oxygen. The heat of the body is the result of chemical changes going on in it; and finally, the operations of the brain, whence results the manifestation of mind, are dependent upon the stimulus of chemical elements, and upon changes, the result of chemical forces. Of course, the physiology of the dental organs cannot be understood without a knowledge of chemistry. The germination, ossification, and development of the teeth, must be studied with reference to chemical laws.

Secondly. Chemistry is indispensable to a proper knowledge of the diseases and treatment of the teeth. Its claims in elucidating the principles of pathology and therapeutics, are the same upon the dentist as upon the physician. Moreover, the prevailing structural disease of the teeth, dental caries, which is so destructive to these organs, and to which they are so universally liable, is of a directly chemical nature, the result of chemical action. To chemistry we must look for information in regard to the character of substances taken into the mouth in the shape of medicines, food, beverages, &c., whether injurious to the teeth or not; and as a guide and monitor in the use of certain applications, as dentifrices, lotions, &c., and also in the preparation or discovery of hygienic, and remedial means capable of counteracting the *causes* of dental decay, (as found in a vitiated condition of the secretions of the mouth, and foreign matter undergoing decomposition in it,) or of arresting, to some extent, the disease when already induced. This is a fruitful, though much neglected field of inquiry, and if cultivated in a scientific spirit, cannot fail to yield important results. Much as is doing towards perfecting the surgical and mechanical branches of our art, dental Pharmacy is, perhaps, destined to achieve more in preventing dental disease than operative dentistry in effecting its cure, or in making reparation for its evils.

A knowledge of chemical science might also lead to discoveries resulting in simpler, and, at the same time, more perfect modes of operating. For example, the plugging of a tooth with gold, is often quite a complex operation, and, to the patient, a very tedious one, requiring, as a general thing, an hour or more, and sometimes several hours, for its faithful performance. If provided with a remedy capable of permeating and combining with the affected portion of the tooth, or in any other way arresting the disease, which is now obviated only by the most careful extirpation, often including a

considerable portion of the healthy and solid dentine, much of this labor could be dispensed with. Suppose, in addition, we had a vitrifiable or *petrifiable* material, at first plastic, to admit of being moulded to any part of the cavity, but readily hardening without contraction or expansion, presenting a compact and resisting surface, sufficient for mastication, and altogether unaffected by the secretions of the mouth, &c., it would still further simplify and facilitate the operation. This is a desideratum which many have sought, though vaguely, to supply; and to judge from advertisements, one would suppose the acquisition had long ago been more than realized. And so perhaps it might have been, had it been sought with concert of action by the scientific in our profession. At least they could not but have obtained some nearer approximation than the worthless compounds in the shape of amalgams and cements, mostly the result of ignorance or cupidity, which, from deleterious qualities, or inability to resist chemical action, have been productive of much harm and little good. That the object is attainable by the proper means and endeavors, can hardly be doubted; but it is only by a knowledge of chemistry that success is to be expected or evil avoided in undertaking such researches, or that a proper discrimination can be made in regard to their results.

The chemistry of the metals, including the laws of galvanic and electrical action and affinities, should receive its full share of attention. It is through this alone that mechanical dentistry can be elevated from a mere trade to a scientific art. Something has already been done in this respect. Artificial teeth are now being united to gold plates by means of a fusible silicious cement, having an affinity for both; a process which, should the result be equal to the expectations, must greatly curtail the manual labor necessary in this branch. It has also been proposed to cast gold plates by the electrotype process, thus bringing the operations of nature into service in preparing and moulding the metal; experiments in which have been attended with some success, and the project is considered by no means impracticable.

Remarks similar to most of the preceding, would be applicable in elucidating the claims of *Materia Medica* and *Therapeutics*, for it is incumbent upon the dentist to know something of the nature and action of medicines, with reference to their direct influence both upon the general system and the dental apparatus, as well as indirectly upon the latter through the medium of the former.

Of *Surgery* it need only be said, that the mouth, which necessarily

comes under the treatment of dental practitioners, is subject to diseased conditions similar to other parts ; to inflammation and its consequences, to ulcers of various kinds, abscesses, tumors and excrescences, whether malignant or benign ; also to affections of the bones of the maxilla and palate, to diseases of the maxillary sinus, &c., all of which require surgical treatment.

The value of "*Theory and Practice*" of Medicine would, perhaps, appear less evident. But why should it, when the relations and sympathies of the teeth and mouth are so obvious, and when dental diseases are found so frequently blending themselves with, and simulating those of the general system ? It is a matter of every day occurrence, and a sad comment upon the lack of medical information, that nervous disorders are mistaken for, and treated as, affections of the teeth. Fevers occurring during the period of dentition, even though entirely of constitutional origin, may present symptoms so similar to those of teething, and *vice versa*, as to make it difficult to distinguish between the two ; a fact which, as such cases come generally under the care of physicians, shows the claims of Dental Science upon the latter. Pain about the teeth and face, though originating, by sympathy, from irritation in other parts, or only manifesting itself as the symptom of some general affection, is usually sought to be alleviated by dental aid. The consequences of ignorance on the part of the dentist in such cases need only be alluded to. That intractable and inscrutable, but by no means uncommon malady, Facial Neuralgia, or Tic Douloureux, has led unwittingly, to the sacrifice of thousands of teeth ; to say nothing of the far more frequent cases of erratic forms of neuralgia, the transient character of which may have but served to justify, to the mind of both dentist and patient, the needless operations resorted to.

But without going into a detail of examples, let it suffice to say, that the pathological relation of the teeth with the general system, and also with special organs, is so complicated that the teeth may involve the constitution, to a greater or less extent, in consequence of their diseases, while they in turn may become affected by various constitutional disorders. Hence a knowledge not only of the general forms of disease to which the system is liable, but also of many special diseases, is essential to a comprehension of the causes and results of those which come appropriately under dental treatment. And as there is no foretelling the extent of the pathological sympathies under peculiar conditions of the system, it would be well to study attentively every known disease appertaining to the

system or to any of its organs. Nor is there perhaps a single case or mode of treatment in medicine which might not, in some way, be turned to account in the sphere of dental practice.

That there is frequently, in the common affections of the teeth, occasion for a resort to constitutional treatment, indicates at once the importance of understanding the nature and action of general remedies, and the peculiar effects of these as modified by constitutional susceptibilities. Indeed the value of Practical Medicine in detail cannot be overrated as a guide in Dental practice.

In the controversy now so warmly carried on through the medical and dental Journals of the day in regard to dental education, it is contended on the one side, that dentists should be instructed in *all* the medical branches to an equal extent with the physician, thereby earning a medical diploma as a guarantee of qualification in Dental Surgery. It is true the other side maintain that all this is not essential; that some of these branches may be dispensed with, and that it is unnecessary to pursue others into details, as required in a strictly medical education. But the following extracts from writers who are now among the most able defenders of the latter side of the question, will show that, in regard to a practical knowledge of medicine, the above remarks are not at variance with what has been advanced by the advocates of either system.

Dr. Westcott, Professor in the College of Dental Surgery recently organized in the State of New York, says :

"While it is the business of the Dental Surgeon to inquire into and treat the disease of a specific class of organs, it is also no less his duty to ascertain, if possible, the *cause* of such disease, its connection with other parts, and whether his remedies are to be applied directly, or whether they are not to be directed to the overcoming of some latent difficulty, antecedent to the most prominent disease. In other words, it is his province and duty not merely to treat these organs as though they were isolated portions of the system, but as parts of the general system, governed, in many particulars, by the same laws, influencing and being influenced by other organs. Hence his inquiry should be directed to the investigation of every influence which can be supposed to have a bearing upon the diseases of this specific class of organs. * * * He is also to investigate how far the diseases to which the teeth and mouth are subject may, in turn, derange other portions of the system. * * * He should become acquainted with the laws of the entire system, together with those of each organ, their mutual connection and dependencies."—

[*American Journal Dental Science*, 1846, vol. 7, p. 155.]

In the same Journal, (vol. 10, p. 188,) Professor Townsend, of the Dental School just opened in Philadelphia, makes the following remarks :

"Disease in distantly situated but nearly related organs, effects the teeth symptomatically, and their original derangements react upon associated organs. The entire digestive apparatus is involved in these connections, by direct functional relation. Dyspepsia has been unsuccessfully treated, and teeth have been erroneously and needlessly extracted, in ignorance or neglect of this mutual dependence. Indeed, the man who has not remedied tooth-ache by emetics, cathartics, and other medicinal appliances, to the *prime riu*, has either had but little practice in dentistry, or deserved to have less. I have taken an obvious instance to represent a principle."—

[Address by E. Townsend, D. D. S., 1859.]

In concurring in the justness of the above remarks, we may be permitted to dissent from a construction to which the last quotation is liable, as though it were incumbent upon the dentist to administer general remedies in order to vindicate his claim to patronage, believing, as we do, that most dentists, however well qualified, are and should be, content with the responsibilities of their special duties, without assuming those of the physician, and that they are therefore disposed to refer such constitutional treatment as may be needed, to the latter. But this does not militate against the principle advanced by the writer, for without some general knowledge of medicine, how shall the dentist discriminate in regard to the limits of his own duties, or know when and in what cases to call in the aid of the general practitioner.

But to suggest more fully the importance of the medical branches, general and special, let us now dwell for a moment upon one which is regarded, and perhaps justly, as of the *least* practical utility to the dentist, viz: Midwifery, or *Obstetrics*,—a knowledge of which, in particular, has been represented, in a high quarter, as rather an incumbrance than otherwise. In reply to objections urged to the present system of instruction in dental colleges, on the score of their deficiency in the medical branches, Professor Harris confidently says: "Will dental students consent to devote sufficient time to Obstetrics, and all the other departments of medicine, to become proficient in them, *knowing that they will never turn much of this information to practical use*, and consequently will forget faster than they acquire it.*" Surely, the learned Professor, in the zeal of defending his peculiar system of dental education, must have forgotten his past teachings in regard to the importance of medical information.—Far from "knowing" that even this branch would be useless, there is no

* American Journal Dental Science for April 1851.

telling how *much* "practical use" it might be turned to, that is, if viewing Dental Surgery in the light of a medical science instead of a mere handicraft, we regard its *practice* as embracing every means for the preservation of the teeth, instead of being limited to actual operations upon them.

Obstetrical Science comprehends a knowledge of the diseases of women in any way connected with child-birth, whether previous or subsequent to delivery; it also embraces those of their offspring. Now, as to the latter, it is well known that the most numerous and dangerous of infantile diseases are connected with Dentition, and every scientific dentist professes that it is his business to know something about this, and to suggest the proper management in cases relating thereto; this is, and unquestionably ought to be, a regular part of Dental Science. The peculiar susceptibility of the teeth of females during the period referred to, their uncommonly heightened sympathies with the general system, and also with special organs, and particularly with the uterus, are subjects with which it is important to be acquainted as a guide in dental treatment.

But there are other respects wherein, to dentists as men of science, as philosophic inquirers, as co-workers with the general practitioner in the investigation of medical truth, the information derivable from the province of Obstetrics, becomes of great moment,—as may be indicated by the following facts:

The teeth are subject to hereditary peculiarities, frequently manifested by imperfections in them, by deformity, and increased susceptibility to disease. The physical condition of the mother has a great influence upon the structure and growth of the teeth of the infant while in embryo. The permanent teeth of the child are influenced by its state of health, (often derived from that of the mother,) and not unfrequently bear the marks to after time, of the diseases which it has suffered. Thus, if during the ossification of the dental pulps, and deposition of enamel, the child be the subject of attacks of fever, small pox, &c., these formative processes may be interfered with, and the teeth will consequently be found imperfect in structure, or defective in certain parts; sometimes, for instance, soft spots will be found in the dentine, or tooth-bone, or the enamel may present grooves or depressions circling or indenting the teeth, at short distances apart, the intervening parts being perfect; thereby marking the periods in which the teeth have passed through certain epochs, as it were, of unusual disturbance.

It is moreover to be remarked, that the general management of

the infant after birth, physical as well as medical, and also the manipulations with it during birth, may have much to do with the future condition of its teeth. All are aware of the remarkable plasticity of the jaws in early life. This, indeed, continues in a great degree during adolescence, and even to some extent after maturity. It is in consequence of this, that we are enabled to correct irregularity of the teeth and deformity of the jaws, often by the gentlest pressure, when properly exerted. This also enables us to *prevent* deformity, or, upon the other hand, admits of its induction. A child in the habit of sucking its thumb, or even its tongue, will be likely to have its upper jaw unnaturally protuberant, and the front teeth thrown beyond the arch. In natural lactation this tendency is counteracted by an admirable adaptation, wherein the pressure from the breast upon the external surface of the dental arch, affords an equipoise to that exerted from within; (and this might suggest the impropriety of certain artificial contrivances for suckling children.) Now the jaw of the uterine infant is incomparably more plastic, and although it is true, proportionally elastic, and capable of recovering from the effects of compressions, yet we can readily conceive of its being subject to such, to an extent beyond the provisions of nature. And from what is there more danger in this respect than in the forced exercises and manipulation connected with the act of parturition? Is there not ground for the assumption, that many of the unsightly appearances presented by the jaws and teeth in after life, may have taken their origin from the unnatural and forced conditions in which the infant was ushered into existence?

Thus it will be seen what a field of inquiry, not altogether without a practical bearing, might be opened and illuminated by this single branch of medical science, although perhaps one of the least important in its relation to Dental Surgery.

There are innumerable questions, many of the greatest practical importance to scientific dentistry, which demand light from every department of medicine. There is the question which relates to hereditary influences upon the teeth, and that which would ascertain how far and in what manner the physical and mental conditions of the mother are operative with respect to the fœtus. The effect of early impressions and habits, the influence of food upon the teeth, from infancy to maturity, as affecting them not only directly, but through the constitution; in regard to the quality of the milk as deteriorated or in any way modified by the health, food, passions and habits of the nurse, and as to the chemical nature of the various

articles of diet, how far these contain the constituents requisite for the nutrition of the organized tooth-bone, and to what extent they afford the earthy material which is necessary to give this structure its due compactness and solidity,—all of which afford subjects for investigation. Then there is the great question as to the *national peculiarities* of the teeth, how far influenced by localities, endemic diseases, miasmatic agencies, atmospheric changes, mode of living, the use of certain aliments and beverages, habits, customs, &c. Our own country affords ample scope for scientific dental inquiry. We are met by the remarkable fact that the teeth of citizens of the United States are unusually subject to structural disease. Whence originates this unfortunate susceptibility? How far dependent upon locality, or upon our peculiar habitudes, and wherein shall we look for means to counteract or remedy the general evil?

Such questions belong properly to the province of the Dental Surgeon. But in order to grapple with them, or even fully appreciate their importance and bearing, it will be necessary to push our inquiries into the different departments of Medical Science.

B. WOOD.

ART. IV.—A NEW ERA IN MEDICINE.

It must be really gratifying to every lover of our profession, to witness the zealous and enlightened enthusiasm which now actuates medical men from one end of the continent to the other. Never in the history of American Medicine, have men sought after truth with more untiring avidity, or been more successful in eliciting important practical information than within the last ten years. Our predecessors (many of them) did nobly, and we not only feel profoundly grateful for their self sacrificing devotion, but cherish the most pleasing recollection of their invaluable contributions to medicine. It was, however, reserved to those living in the middle of the nineteenth century to do more than they. They were comparatively selfish, while the latter are social, in their aspirations after the highest honors of the profession. The honor of organizing a National Medical Association, with County, City and State auxilliary societies, attaches peculiarly to modern physicians and the present age. It is by means of social organization—free, unrestrained interchange of opinion among gentlemen of the fraternity, and hearty co-operation of the state so-

cieties with each other and the American Medical Association, that the various departments of the profession, are so rapidly advancing. And it is toward these societies, in a great degree, that public attention has been directed for the ultimate destruction of every form of empiricism, as well as the maintenance of the present and future honor of the medical profession. In this they will not be disappointed—provided—we do our duty: for whatever of superstitious veneration may have been hitherto entertained for a seventh son, or however much regard expressed for the balsams, panaceas, and hyperions of the Indian, the negro, or the common quack, it is a fact, now at least apparent, not alone to medical men but to all, that the recent brilliant achievements in the medical and physical sciences have so illuminated the common mind, that the masses now see and admit that superior knowledge gives power, not the less in controlling diseased, than healthy action in man's organism.

To the honor of Tennessee, Georgia, North and South Carolina (and most of the other Southern States) be it said, they have prosperous medical societies. And Kentucky, so long in the rear in medical co-operation, has now probably the most laborious and efficient society in the Union. At her last meeting, held in Louisville the 22d of October, the following subjects were referred to appropriate committees: 1st. Practical Medicine, 2d. Pharmacy, 3d. Vital statistics, 4th. Obstetrics, 5th. Medical Ethics, 6th. Public Hygiene, 7th. Surgery, 8th. Indigenous Botany, 9th. Epidemics, 10th. Statistics of Lithotomy and calculus diseases, 11th. Statistics of Hernia, 12th. Medical Biography, 13th. Medical Literature, 14th. Relation between diseases and geological formations, 15th. Hospitals, 16th. Trials for Malpractice, 17th. Operations in malignant diseases, 18th. Epidemic Erysipelas, 19th. Epidemic Dysentery, 20th. Typhoid Fever, 21st. Placenta Previa, 22d. Statistics of remedies in diseases, 23d. Prisons and Penitentiaries, etc., etc.

These general and special subjects have been referred to men already favorably distinguished, and in some instances to medical philosophers, whose reports will be eminently worthy of permanent embodiment; we therefore propose, from time to time, to make such selections, from these and other monographs, and general reports, as will afford peculiar or practical interest to members of the profession, hoping thereby to excite a generous spirit of emulation.

Now that professional assiduity has become the price of medical pre-eminence, the active, the vigilant, investigating physician will find his reward in being called to take the place of the stereotyped and slothful practitioner.

W. P. JONES.

ART. V.—TO THE PHYSICIANS OF TENNESSEE.

GENTLEMEN :

At the last annual meeting of the State Medical Society, special committees were appointed to investigate and report to the next meeting upon the following subjects, viz :

- 1st. The history of Epidemic Diseases in Tennessee.
- 2nd. The history of Continued Fevers of Tennessee, their varieties, semeiological, anatomical, and other characteristics.
- 3rd. The history of Operative Surgery in Tennessee.
- 4th. The history of Obstetric Surgery.
- 5th. The Adulteration of Drugs, Medicines, and Chemicals.

The respective Committees are, of course, expected to embrace every opportunity to elicit practical and historical information from competent members of the profession, in the different divisions of the State. We, therefore, the committee to whom "the history of Continued Fevers" was referred, take this opportunity of calling the attention of medical men, and especially those to whom this Journal will be sent, to the fevers of the State. And we urge you, gentlemen, to furnish us with any valuable information in your possession, documentary or otherwise, pertaining to these forms of fever. Your attention is particularly called to the following points of observation :

1st. As to the agents or causes which you suppose to be operative in the production of this class of fevers.

2nd. Causes and combination of circumstances which favor their general prevalence within your range of observation.

3rd. Causes and conditions which retard their progress.

4th. Temperament, age, sex, color, occupation, diet and habits of those most liable to either form of fever.

5th. During what years and months of the year most prevalent.

6th. Influence of atmosphere as to temperature, humidity and dryness, upon this class of fevers.

7th. Prominent symptoms during the several stages, cephalic, abdominal and thoracic ; which the most uniformly present in the fatal cases, and which in those of the opposite character.

8th. Treatment, ratio of mortality, post-mortem appearances.

9th. Medical Topography of your section of the State ; nature of the soil ; general geological character.

10th. Quality of water, whether freestone or limestone, &c.

11th. The history of Continued Fevers of Tennessee from the earliest records within your reach, and especially from the earliest period of your personal observation.

12th. In what respects do causes producing Typhus and Typhoid fevers differ from those producing other continued fevers?

13th. Is Typhoid fever contagious? If so, at what period, and under what peculiar circumstances?

14th. The character of the several forms of Continued Fever prior and subsequent to the first visitation of Asiatic Cholera in the Mississippi Valley.

15th. A succinct analysis of the prominent Pathological phenomena peculiar to the two periods, in the history of these forms of fever.

A correct history, from the respective committees in Tennessee, would be matter of common interest in the profession throughout the country, and lead to the most salutary improvement in general practice. We do hope, therefore, that Physicians in the State will feel it their duty to contribute to the promotion of science and human happiness, by heartily co-operating with each of the committees.

Those unable to give information upon *all* the above points, will oblige us by communicating such facts as they may have, throwing light upon any department of either form of Fever.

W. P. JONES,	}	Nashville.
J. W. KING.		
W. T. BASKETT,		

ART. VI.—REVIEW OF SUTTON ON TYPHOID FEVER.

DR. SUTTON, of Georgetown, has put forth in plain, unostentatious style, an excellent work of one hundred and twenty-seven pages, on Typhoid Fever, as it prevailed a few years ago in his section of Kentucky. We say an excellent work, because we really so esteem it. But in saying thus much, we do not wish to be regarded as adopting the Doctor's views in every particular. This little volume is one of the first fruits of a County Society, though in point of interest, by no means confined to Scott county or the State of Kentucky. Its facts are of a general character, and destined to form a part of medical history.

The first case of Typhoid Fever to which Dr. S. was called, occurred in the vicinity of Georgetown, in the summer of 1841. This fever had, however, prevailed about Paris and Lexington for several years prior to that time. In 1842 it made its appearance in the then village, (now city) of Georgetown, and probably every year from that time to the present, has prevailed to a greater or less extent, in or about the place. Dr. Craig thinks he recognized it in the same locality as far back as the winter of 1837. Dr. Sutton is unable to recur to symptoms such as to convince him of its identity with Typhoid Fever as it now prevails, though he distinctly recollects prominent points of resemblance.* Of one hundred and ninety-two patients treated by Dr. Sutton, there were one hundred and four males and eighty-eight females; one hundred and eighteen whites and seventy-four blacks. In the month of December 3, January 12, February 16, March 8, April 26, May 21, June 21, July 25, August 26, September 17, October 8, November 9, giving to the seasons respectively, Winter 31, Spring 55, Summer 72, Autumn 34.

Half his cases had epistaxis in 1847, which he says was a greater proportion than usual. Large quantities of blood evacuated by the bowels had only been observed in eight or ten cases.

One of the most remarkable features of Dr. Sutton's observations is, that *never*, except in the instance of his son, has he seen the "*rose-colored* lenticular spots." The medical friends with whom he has conversed have not seen them either.

In view of this admission on the part of Dr. Sutton, and the fact that Louis detected the rose spots in forty-nine out of fifty-four cases, Chomel and Genest in three-fourths of theirs, and Bartlett in nine-tenths of his, we say, in view of these facts, we fear Dr. S. will suffer somewhat in public estimation as a critical observer. Nevertheless, like himself, we prefer truth to erroneous though concurrent testimony. Truth is what we want—and this we doubtless have in the report before us.

Sudamina the Doctor found a very frequent attendant upon Typhoid Fever, perhaps in one-third of his patients, and *Desquamation of the cuticle* in still a larger proportion.

The author presents cases and arguments, both for and against, the contagious nature of Typhoid Fever, but concludes that it too fre-

* Dr. J. D. Winston, now of this city, met with Typhoid Fever in his practice at Columbia, Kentucky, in the spring of 1841. And we think it was the following summer that introduced us to our first case in Bowling Green, Kentucky.

quently occurs *spontaneously* to admit of its being classed with contagious diseases. He has also treated four persons who had the disease a second time.

These are some of the observations of a Kentucky physician, with reference to a disease which is by no means peculiar to our sister state, but permeates every city, county and village in Tennessee, and confronts the practitioner at almost every step in his professional career.

W. P. JONES.

ART. VII.—CHARLESTON HOSPITAL REPORTS.

To a friend in Charleston, who will please accept our thanks, we are indebted for elaborate Hospital Reports, from which we are pleased to learn that notwithstanding the unacclimated population is now threefold greater than it was in 1838, the recent mortality from Yellow Fever falls far short of its former prevalence. This is attributed, and very properly no doubt, to the opening of additional Hospitals in the beginning of the epidemic, into which the afflicted poor were not only invited, but taken, if possible, in the very incipency of disease.

From Rev. Dr. P. N. Lynch's report of St. Mary's Relief Ward, Roper Hospital, we make the subjoined extract :

"Total admissions into the Hospital, from September 2, to November 2—males 182; females 132—314

The largest number under our charge at one time, was 85; the average number 60, the average stay of each patient, 12 days.

Of patients admitted, there have been natives of Ireland, 266; United States, 22; England, 3; Scotland, 1; Canada, 3; Germany—viz: Bremen, 4; Prussia, 3; Bavaria, 1; Baden, 1; Schleswig-Holstein, 1; Meeklenberg Schwerin, 1; Saxe Weimar, 1; Hanover, 1—13 Bohemia, 3; Sweden, 1; Norway, 1; Poland, 1; Switzerland, 1—314.

Fully seven-eighths—275—of these cases presented the clearly marked type of Yellow Fever, in various degrees—not a few of them very virulently—28 were more obscure cases, and 11 not cases of Yellow Fever. For this classification I am responsible; I believe it sustained by the judgment of Dr. Bellinger, and of other eminent physicians familiar with the disease, who, at different times, examined all the patients in the Hospital.

The general result has been the following: Died, 58; withdrawn 3—2 of whom have since died; left 2, during convalescence—both recovered; remaining 2, convalescent; discharged 249, recovered.

Uniting the two classes of clearly marked and obscure cases—303

—among whom all the deaths occurred, they may be classified as follows:

1st. As to stage of sickness when admitted:

117 were admitted on the first day of attack, of these 8 have died, 1 was withdrawn; 108 recovered.

90 were admitted on the second day of attack; of these 20 died; 1 withdrawn; 1 remains; 68 recovered.

46 were admitted on the 3d day of attack; of these 13 died; 33 have recovered.

50 were received on the 4th day or later; of these 17 died; 1 remains; 32 have recovered.

Bearing in mind the very insidious manner in which the Fever often makes its approaches, a classification of this character can only be an approximation. Laboring men, unwilling to believe themselves sick, and accustomed to "work off" slight ailments by continuing at labor, might be sick for a day or more, without giving up. I have in this distribution considered their statements, and the development of the attack in each case.

2d. As to the length of residence in Charleston before admission: 56 had been here less than one month.

59 more than one month and less than six months.

83 more than six months and less than one year.

65 more than one year and less than two years.

22 more than two years and less than three years.

12 more than three years and less than five years.

6 over five years.

Classifying the deaths (58) in the same manner:

37 have been here less than one year, (16 less than one month.)

15 over one year and less than two years.

5 over two years and less than three years.

1 just three years."

From the report of Drs. Post and Huger, physicians to the City Relief Hospital, we extract the following:

"If the minds of that portion of our community most liable to the disease, had been impressed with the necessity of early seeking proper medical advice, and they had acted accordingly and not quacked themselves, often to their great detriment, the mortality, we are convinced, would have been much less.

Of the success of the practice adopted and pursued, it would not become the undersigned to speak: they will only say that their undivided attention has been given to the task assigned them. Believing that the safety of their patients depended very much upon close observation and untiring watchfulness, they decided to take up their abode in the house, and from the time that it was opened till it was closed, they have adhered to this plan. One of the physicians has always remained at night in the establishment, and very commonly both of them, and it has rarely happened that at any hour of the day or night the Hospital has been without a medical attendant.

The following schedule will show the number of admissions, the

place of their nativity, length of residence in Charleston, disease, termination, number of days sick previous to admission.

Number of admissions into City Wards, Roper Hospital, from Sept. 13th to Oct. 26th, 1852, 124.

Natives of the United States...	10	Natives of England.....	9
“ “ France.....	2	“ “ Canada.....	1
“ “ Germany.....	30	“ “ Denmark, Swe-	
“ “ Hungary.....	1	den, Norway....	4
“ “ Italy.....	1	“ “ Ireland.....	66

Whole number

124

Resident in Charleston 1 month and under.....	40
“ “ 2 months.....	5
“ “ 3 “	3
“ “ 4 “	3
“ “ 5 “	5
“ “ 6 “	4
“ “ 7 “	2
“ “ 8 “	2
“ “ 9 “	4
“ “ 10 “	2
“ “ 11 “	2
“ “ 12 “	12
“ “ between 1 year and 18 months.....	10
“ “ “ 18 months and 2 years.....	13
“ “ 3 years.....	3
“ “ 4 “	3
“ “ 5 “	3
“ “ between 5 and 20 years.....	7
Unknown; brought in <i>in articulo mortis</i>	1

124

Yellow Fever.....	86	Congestion of Brain.....	1
Congestive Fever.....	2	Delirium Tremens.....	1
Bilious Remittent Fever.....	10	Apoplexy	1
Catarrhal Fever.....	18	Phthisis.....	1
Intermittent Fever.....	3	Ascites	1

124

Yellow Fever.....	Recovered	59,	Died	27
Congestive Fever.....	“	1,	“	1
Bilious Remittent Fever..	“	10,	“	0
Catarrhal Fever.....	“	18,	“	0
Intermittent Fever.....	“	3,	“	0
Congestion of Brain.....	“	0,	“	1
Delirium Tremens.....	“	0,	“	1
Apoplexy.....	Transferred to Alms House,			1
Phthisis	Went out improved,			1
Ascites....	Transferred to Alms House,			1
	Removed 91. Died 30.			

Of 59 cases of Yellow Fever, recovered after throwing up black vomit.....	2
Recovered after passing it copiously by stool.....	9
Recovered after hemorrhages from bladder, rectum and other cavities.....	13
Were ill 1 day previous to admission.....	21
“ 2 days “ “	8
“ 3 “ “ “	8
“ 4 “ “ “	10
“ 5 “ “ “	5
“ 6 “ “ “	4
“ 8 “ “ “	1
“ 9 “ “ “	1
“ 10 “ “ “	1

Cases, 59

Of 27 cases of Yellow Fever which died, 1 was ill six or seven hours previous to admission; threw up black vomit a few hours after entrance. (This man was taken sick and died within 48 hours.)

2 were ill one day previous to admission, throwing up black vomit before death.

6 were ill 2 days previous to admission, throwing up black vomit before death.

7 were ill 3 days previous to admission; of these, 3 when admitted, were throwing up black vomit.

4 were ill 4 days previous to admission; of these, 1 when admitted, was throwing up black vomit.

3 were ill 5 days previous to admission; of these, 2 when admitted, were throwing up black vomit.

1 was ill six days previous to admission, and when admitted, was throwing up black vomit.

3 were ill 7 days previous to admission; of these, 1 when admitted, was throwing up black vomit.

Total—8 of whom, when admitted, were throwing up black vomit.

Of the other three deaths—1 from Congestive Fever, was dying on admission, and was apparently brought in to save his friends burial expenses; 1 from Congestion of Brain, sent in in a similar condition; 1 from Delirium Tremens.”

Reports of general practice in Charleston corroborate the preceding extracts and show most conclusively, upon what kind of statistical authority, this has procured the title of Strangers' Fever. An enterprising young man, however, may feel disposed to risk something, in view of the fact, that a few years healthful residence in Charleston renders one comparatively invulnerable, when he may hope to live a hundred years.

W. P. JONES.

HOSPITAL REPORTS.

ART. VIII.—NOTES OF A CASE OF TYPHOID FEVER,—TREATED IN THE STATE HOSPITAL.

C. R., eight years of age ; admitted November 1st.—Condition—Pulse 114, and quick ; skin dry and hot ; left cheek flushed ; slight stupor, with some deafness ; tongue dry and contracted in the middle ; some moisture around the margin. Bowels have been moved three times to-day ; evacuations liquid, dark and foetid. The mother states she has been unwell about four days. Pres. *R. Pulv. Opii. grs., ii* ; Calomel, *grs. viii.* Divide into four powders, one to be taken at bed-time. Solution of *℥ i Hyd. Potas., in ℥ i* peppermint water. Dose, one teaspoonfull three times a day. Diet, tea and water crackers.

TUESDAY, Nov. 2.—At 9 o'clock, A. M., pulse 110, and weak ; temperature of the skin slightly reduced ; pallor of countenance. No evacuation from the bowels during the night ; slept quietly ; says she felt cold about three hours ago. Continue pres.

WEDNESDAY, Nov. 3.—At 9 o'clock, A. M., pulse 110, and weak ; skin hot and dry ; left cheek flushed. Says she felt cold about an hour ago. Bowels moved once since the powder was given last night ; tongue unchanged. Anorexia. Continue pres. Lemonade for a drink. *R. Sulph. Quinine, grs. v. Paregoric, ℥ i, water ℥ i,* to be taken at 4 o'clock to-morrow morning.

THURSDAY, Nov. 4.—Pulse 110, and fuller. Quinine and Paregoric dose, completely interrupted the cold sensations ; skin warm and disposed to moisture ; no action from the bowels ; slept comfortably. Anorexia. Pres. continued. Diet, sour buttermilk and water, and pulp of roasted apple. Stop the Calomel and Opium powder after to-night.

FRIDAY, Nov. 5.—Pulse 120, small ; skin dry and warm ; slight perspiration about the nose ; two alvine discharges, thin and yellowish ; tongue dry. Slept comfortably last night : no return of the chilliness this morning. Anorexia. Pres. *R. Hyd. Potas. ℥ i, Laudanum, f. ℥ i, Peppermint water, f. ℥ ii.* Dose, *f. ℥ i* three times a day, in a table spoonfull of plain water. Diet, sour buttermilk.

SATURDAY, Nov. 6.—Pulse 115 in the half erect position ; skin warm and moist ; perspired freely through the night ; slept comfor-

tably. Bowels moved once ; evacuation more consistent ; tongue "cleaning off," and not so dry as for two days past. Condition in every respect decidedly improving. Continue pres. of Potash and Laudanum, and diet of sour buttermilk.

SUNDAY, NOV. 7.—Pulse 96, skin cool and dry. Process of desquamation of scarf skin has commenced. Bowels have been moved six times within the last twenty-four hours ; evacuations thin and yellowish ; tongue clean, not so dry as yesterday ; no pain or uneasiness in any part ; less stupor. Symptoms indicate a progressive improvement. Continued pres.

MONDAY, NOV. 8.—Pulse 90 ; slept well through the night ; skin cool and dry ; perspired freely during the night. Continued pres.

TUESDAY, NOV. 9.—Pulse 90, feeble ; skin dry but pleasant ; two alvine discharges in the last twenty-four hours ; slept well through the night ; tongue *clean* and *moist* ; appetite returning. Continue pres. Diet, tea and dry toast.

WEDNESDAY, NOV. 10.—Pulse 100, and feeble ; tongue clean and moist ; skin cool and pleasant ; countenance natural and rather cheerful ; one alvine discharge in the last twenty-four hours, of natural color and consistence. *Discontinue* medicines.

THURSDAY, NOV. 11.—Pulse 100, with increased volume ; tongue perfectly clean and moist ; skin warmer than yesterday ; countenance cheerful ; two evacuations from the bowels since yesterday morning ; coughs occasionally ; scanty expectoration. Pres. R. Hyd. Potas. ʒi, Laudanum, f. ʒi, Peppermint Water, f. ʒi. Dose, f. ʒi, three times a day.

FRIDAY, NOV. 12.—Pulse 90, soft ; skin dry but pleasant ; tongue clean and moist ; slept comfortably ; asked for a roasted apple ; cough subsiding. Continue pres.

SATURDAY, NOV. 13.—Convalescent.

For several days after admission, this patient complained of headache, and there was the usual circumscribed tenderness upon pressing over the region of the ileocolic valve. I did not observe the "rose-colored exanthem" said to be characteristic of this species of fever. The skin, as is common in Typhoid Fever, was dusky and rough ; the lips puckered and disposed to crack and bleed. There were no sudamina, but evident enlargement or prominence of the sebaceous follicles of the skin, imparting a sensation of roughness to the hand when rubbed lightly over the surface, of the arms especially. I am inclined to the opinion, that this condition of the sebaceous glands is peculiar to this variety of the fever, (Dothineritis.) But

whether this bears any relation to the diseased state of the solitary and aggregated glands on the mucous surface of the ileum and colon, remains to be demonstrated. From my own experience, however, I am disposed to believe that this appearance of the sebaceous follicles is oftener met with in cases of Dothinerteritis, than in those cases of Typhoid Fever complicated with pulmonary lesions.

A reference to several points in the history of the progress and treatment of this case, may be of some interest. The Calomel and Opium doses given for the first four nights, seemed to exert no appreciable influence upon the symptoms or progress of the disease; the cold sensations (simulating, if not a chill,) supervened during its administration, and were completely interrupted by the Quinine and Paregoric dose. The periodicity of this symptom, however, did not appear to constitute an essential part of the fever, but rather an accidental complication, as its interruption did not materially vary the subsequent phenomena. On the second day from the administration of the Quinine, and the discontinuance of the Calomel and Opium powder, the record shows that the pulse was more frequent than it had been at any previous date—the skin “dry and warm,” and the tongue dry; and so far as symptoms indicate any thing, the patient was actually in a worse condition than before. The most careless reader, however, cannot fail to mark the notable modification of the symptoms, subsequent to and during the use of the Potash and Laudanum solution, and the buttermilk diet. There seemed to be, from that point of time, a tendency to a resolution of the graver symptoms, by a discharge (critical,) alternating through the bowels and skin. Now whether there was, at this particular juncture, a tendency to spontaneous resolution or crisis, which might have occurred without the use of medicine of any kind, it may be difficult to determine. How far the medicines may have been efficient, or whether they had any agency at all in curing the fever, each one must determine for himself with the facts before him.

After a deliberate review of the history and treatment of the case, I confess myself at a loss whether to attribute the credit of the cure to the Iodide of Potash or the Laudanum, or the combined modified therapeutic agency of both together. I may be permitted, however, in treating of a disease so obscure in its essence, and inexplicable in its phenomena, to suggest a few thoughts: Typhoid Fever has been usually classed under the head of “Zymotic” diseases; upon the assumption, whether true or otherwise it is not now necessary to controvert, that the blood is leavened by some peculiar fermentative

poison, and that the symptoms characteristic of Typhoid Fever, are due to this fermentation of the blood ; and there is certainly good reason to infer that the chemical and physiological qualities of the blood have been vastly deteriorated by the poison of Typhoid Fever, from the depraved secretions of every surface and organ in the body, and the obtused functions of the sensorium. The vital forces are singularly depressed, and the pulsations of the heart, though increased in frequency, are feeble, and incompetent to the proper distribution of the blood. From sensorial infirmity, or the direct toxic qualities of the circulating mass, the lungs fail to invite the amount of air requisite to the proper oxygenation of the blood ; the hydrocarbonaceous elements accumulate in the circulation ; the renal secretion is scanty from the lack of oxygen in the arterial system to arrange the products of the destructive metamorphosis of the tissues, which is very rapid, (as is the case in all exanthematous affections,) preparatory to elimination by the kidneys; the pulmonary and cutaneous exhalations are more or less completely suspended ; the liver has ceased to perform its proper functions ; in fact every depressing agent and condition is operating with such intensity upon the forces of organic life, that if relief be not afforded from some quarter, the patient must die. But diarrhœa sets in ; the depraved albuminous materials of the blood are discharged by a species of endosmosis through the mucous membrane of the alimentary canal, a vicarious depuration is substituted, to compensate, for the time being, for the lack of hepatic and renal excretion. And yet, this very symptom, which ought to be treated as an expression of the conservative principle of the vital forces, is regarded by a large majority of practitioners as a grave symptom of a diseased condition of the gastroenteric membrane, threatening ulcerative inflammation of the glands of the colon and ileum*, and means and medicines are at once employed to suppress it ; but with what success, usually, let the experience of each man testify.

* Dr. Todd, in a recent clinical lecture upon a fatal case of Typhoid Fever, marked in the last stages by profound stupor, suggested to the class, that in all probability, the stupor was due to the poisonous matter taken into the circulation, by absorption from the ulcerating glands of Peyer and Brimmer. Reluctant as I am to differ from such high authority, it seems to me that Dr. Todd's views are not tenable : as there is almost invariably diarrhœa present in every stage of the fever it seems more reasonable to suspect that inflammation of those glands results from poisonous matter received by exosmosis from the blood, and that the succeeding phagadenic ulceration is kept up by a lesion of nutrition; the plasma of the blood being unfit to check the destructive ulceration, and repair the solution of continuity.

Opium alone, and in combination with astringents, is given by the mouth as well as by enema, but my own experience has taught me that it is vain to attempt the suppression of the diarrhœa by mere astringents, while the condition of the blood is unchanged. The combination of Calomel and Opium generally moderates the diarrhœa by substituting the depurative function of the liver, but Calomel and Opium will not cure Typhoid Fever, in my hands at least. It frequently happens, however, that the use of Opium alone, though impotent to suspend the diarrhœa, improves the general condition of the patient, and mitigates the severity of several distressing symptoms produced by lesions of innervation. There is another condition of the system in the progress of Dothinenteritis. (for it is to this variety of Typhoid Fever that these remarks are intended to apply,) in which stimulating doses of Opium are very decidedly useful. The capillary system of blood vessels in Typhoid Fever is generally collapsed—from the feeble propulsive efforts of the heart, or some other cause, seated perhaps in the organs of secondary assimilation, the blood is deprived of the benefit of what may be termed “cutaneous respiration,” in contributing a supply of oxygen, and arousing the functions of the extreme vessels; and a similar condition doubtless exists, to some extent, in the lining membrane of the air vessels throughout the lungs, and, as a consequence, imperfect decarbonization of the blood. Now, *stimulating* doses of Opium, by exalting, for the given time, the force of the heart’s action, respiration is slightly accelerated; a larger amount of oxygen is taken into the lungs, the capillary system is filled with a better blood; and anon, as a consequence, there is a marked improvement in the character of the several secretions, from the kidneys, liver and bowels. Opium, in such a case, I think, operates upon the system as a *tonic*, similarly to Quinine in certain states of the constitution in other grades of fever. We have a striking illustration of the tonic properties of Opium in “colliquative sweats,” supervening upon protracted ague, and some other exhausting diseases. A patient, for instance, rises this morning, feeling feeble and languid; his night clothes are saturated with perspiration; the surface is morbidly sensitive to cold; he passes a quantity of pale urine, and has no appetite for his breakfast. To-night he swallows a half grain of Opium; sleeps soundly; escapes the exhausting sweat; in the morning feels comparatively cheerful, and passes a quantity of high-colored urine, containing the normal amount of solid matter.

What may be the peculiar therapeutic properties of Hyd. Potash, and its value in the present case, are worthy of observation; but as these remarks have been protracted already, much farther than at first intended, I will close up for the present.

J. W. KING.

ART. IX.—CHLOROFORM IN INFANTILE CONVULSIONS AND OTHER SPASMODIC DISEASES.

By Professor Simpson, Edinburgh.

[As the majority of convulsive attacks in infants depend upon sympathetic or functional derangements, and not on structural changes—the first indication is to discover and remove sources of irritation; and the second, to reduce the super-irritability of the excito-motory system. In the more chronic cases iron and zinc are used; in the more acute ones, antispasmodics, such as opium, hyoseyamus, and musk. Dr. Simpson gives the following case:—The Viscountess — was confined on the 7th October. On the 17th of the same month, the child was observed by the nurse to have two or three times during the day twitchings in the muscles of the face. On the two following days these increased in frequency and extent:]

On Monday the 20th, the convulsions became far more violent in their character, were more prolonged in their duration, and were repeated with much greater frequency. They continued with little change, and no abatement in their intensity or frequency, for the next fourteen days. Sometimes they effected the right side of the body much more severely than the left. In the meantime, Dr. Scott and I tried a great variety of means for their relief; but all in vain. The bowels were well acted upon with mercurials, magnesia, &c.; and every separate function attempted to be brought as near as possible to the standard of health. A new wet-nurse was procured, least the milk might perchance have been proving, as it sometimes does, the source of irritation. The child was placed in a larger and better ventilated room. Ice and ice water were occasionally applied to the scalp. At one time, when the fits became unusually prolonged, and were not only accompanied, but followed for a time, by much congestion in the vessels of the scalp and face, and an elevated state of the anterior fontanelle, two leeches were applied. Liniments of different kinds were used along the spines. Musk, with alkalies, was given perseveringly for several days as an antispasmodic; and small doses of opium, turpentine, enemata, &c., were exhibited with the same view. All these and other means, however, proved entirely

futile. As I have already stated, it was on Monday the 20th October that the fits first assumed a severe character, and they continued without any amelioration for about fourteen days from that period, recurring sometimes as frequently as ten or twelve times in an hour. at last the child, who had hitherto maintained wonderfully his strength and power of suction, began to show symptoms of debility and sinking; and during the fifteenth and sixteenth days of the attack, the fits became still more violent, and more distressing in their character. They were now accompanied with moans and screams that were very painful to listen to; symptoms of laryngismus and dyspnœa supervened towards the termination of each fit; and in the intervals the respiration, as well as the pulse, continued much quickened.

During these two last days of the disease, the exhaustion became so great, the dyspnœa in the intervals so distressing, and the fits so very violent and constant (seventeen were counted in one hour,) that Dr. Scott and I gave up all hopes of the possible survival of the infant. We had exhausted all the usual means of relief. Ultimately, but much more with the view of abating the screaming, laryngismus, and other distressing symptoms under which the little patient was suffering, than with any great hope of permanent relief and cure, I placed the child, on the forenoon of the 5th of November, for about an hour under the influence of the inhalation of chloroform. During this hour there was no recurrence of the fits; but in a short time after the withdrawal of the action of the anæsthetic, the convulsions recommenced with their old violence and frequency. The benefit, however, was sufficient to encourage a longer repetition of the remedy; and from four to eight o'clock in the afternoon of the same day, my assistant, Mr. Drummond, placed and kept the child again under the influence of chloroform, a few inhalations from time to time, of a very small quantity of the drug sprinkled upon a handkerchief, and held before the face of the infant, being sufficient for this purpose. It was specially applied at any threatening of the recurrence of a fit, and during the four hours in question, all convulsions were in this way repressed. When the child was allowed to waken up at eight o'clock, it took the breast greedily, and continued well for upwards of an hour, when the convulsions again began to recur. At last, about twelve o'clock p. m., it was again placed under the inhalation of chloroform, and kept more or less perfectly under its action for upwards of twenty-four continuous hours, with the exception of being allowed to awaken eight or ten times during that period for the purpose of suction and nourishment. During most of this period it was carefully watched by Mr. Drummond, and at last the nurse was intrusted with the duty of adding the few drops of chloroform to the handkerchief, and exhibiting them at any time the child was offering to awaken or become restless.

After this long continuation of the chloroform, the child, on being allowed to waken up, as usual drank greedily at the nipple, and immediately fell back in a quiet and apparently natural sleep. The chloroform and all other medication was in consequence discontinued:

and from this time there was subsequently no recurrence whatever of the convulsions. In about ten days the infant was removed with the family to the country. I have, within the last two days, (December 18,) seen the child as it was passing through Edinburgh. It was strong, plump, and well grown for a child of ten weeks, and was, in fact, revelling in the best of health.

In exhibiting the chloroform to this infant, ten ounces of the drug were expended; but of course a very large proportion of this quantity was lost by evaporation, in consequence of the mode in which it was employed.

I have known the inhalation of chloroform similarly useful in other cases in arresting infantile convulsions; but I am not acquainted with any instance in which the patient was so young as in the above instance. In the adult also, especially in cases of puerperal convulsions, I have now repeatedly seen the inhalation of chloroform as signal and satisfactory in its antispasmodic power over the convulsive fits, as it was in the little patient whose case I have described. Tetanus and epilepsy have been temporarily arrested and controlled by it. And perhaps it will yet be found one of our most certain and beneficial therapeutic means in the functional forms of those different convulsive or spasmodic diseases that are produced either by an undue excitability of the true spinal system, or by distant morbid irritations acting through this—the excito-motory system. Such reflex convulsive or spasmodic affections are, as is well known, particularly common in infancy and childhood. I have seen its use arrest laryngismus, colic, hiccup, &c.; and cases have been detailed to me of its occasional successful use in asthma, spasmodic urethral stricture, &c. But there is one common and too fatal spasmodic disease, almost confined to the period of childhood, in which I have seen anæsthetic inhalations successful in arresting and controlling the paroxysms, and where probably a more extended and persevering use in the employment of them would be found to be attended with beneficial effects. I allude to whooping-cough. I have known chloroform inhalations greatly abate the irritability of the cough attendant upon phthisis, &c. But with others, I have scrupled to use chloroform inhalations in whooping-cough, under the fear that they might possibly increase the great predisposition which exists in this affection to pneumonic inflammation, or aggravate that inflammation if it were already present. This *a priori* reason, however, against the use of chloroform inhalations as an antispasmodic in whooping-cough has been of late set aside by the observations and experience of different German physicians. In a paper, containing some remarks relative to the medical use of chloroform, published in the 'Monthly Journal' for December, 1847, in addition to its employment as an antispasmodic, anodyne, &c., I suggested the possibility of the drug acting as a contra-stimulant in some inflammatory diseases, and particularly in those of a painful kind. Latterly we have had records published of its employment in upwards of 200 cases of pneumonia in German practice. Out of 193 cases of pneumonia treated with chloroform

inhalations by Wachern, Baumgartner, Helbing, and Schmidt, 9 patients died, or the mortality amounted to 4 1-4 per cent. Dr. Varentrapp has given chloroform in 23 cases of pneumonia in the Frankfort Hospital. One of these 23 patients died. The detailed results in the other 22 cases seem to have been sufficiently satisfactory. At all events, the effects of the chloroform inhalations upon the cough, expectoration, &c., and upon the general course of the disease, would appear to show that we need have no fears of deleterious effects from it as far as regarded the chance or existence of pulmonary inflammation; whatever advantages we may derive from it in relation to its prevention of that inflammatory state by allaying the cough, keeping the lungs in a relative state of quietude, and abating or restraining the successions of characteristic spasmodic attacks. I speak of course of the more severe cases of pertussis; for the milder forms of it require care merely rather than actual treatment.—*Monthly Journal of Med. Science*, Jan. 1852, p. 40.

DEPARTMENT OF CHEMISTRY AND PHARMACY.

ART. X.—PHARMACY AND MEDICINE.

To use the definition of the great American lexicographer, *Pharmacy* is “the art or practice of preparing medicines ; the trade of an Apothecary or Druggist.” Embracing within its domain the principles of Chemistry, *Materia Medica*, Medical Botany, Zoology, Mineralogy, Geology, &c., it demands, to be properly pursued, a knowledge of all these sciences. It possesses, therefore, an intimate relation with them, and it is through this channel that their theories exert a practical influence upon the Science of Medicine. Theoretically, however, they stand alone, complete in every part ; but practically they present a solid phalanx, offering their tribute at the altar of Pharmacy. Chemistry here displays her most beautiful trait in rendering to man the potent weapons whereby he may boldly meet and successfully contend with disease.

Medical Botany and *Materia Medica* cull their choicest flowers, extract their sweetest gums and purest resins, and ransack nature's domain to collect substances for the Pharmaceutical Chemist, out of which he might compound agents to be employed in alleviating “the ills that flesh is heir to.”

The Zoologist discovers in the animal kingdom, as does the Mineralogist in the mineral, substances which, in the laboratory of the Pharmacist, contribute to the same great and beneficial end.

And lastly, the Geologist, in his investigations into the structure of the earth upon which we live, renders invaluable aid to Medical Topography. He points out the nature of the earth's crust, the causes of its valleys and hills ; makes known the effects of those agents which are continually at work altering its general appearance, and, while opening up the vast treasures that lie entombed beneath the surface, offers up their solid facts upon the shrine of Science and Art.

These are the sources whence the Pharmaceutist draws his *material*. They are as extensive as they are important, and require of him "as a skillful workman who needeth not be ashamed," that he should possess, not a superficial, but a thorough knowledge of them.

Then in one brief word, no one will fail to see the mutual dependence of the Medical and Physical Sciences—a dependence as close and a connection as indissoluble as that which exists between any of the other departments of human investigation, or of the industrial pursuits.

Such, then, being the case, nothing but harmony should mark their mutual operations. As in a splendid piece of machinery, no part can move without the action of some other, or, as in the human system, "the eye cannot say to the hand I have no need of thee, nor again the head to the feet, I have no need of you ; nay, much more, those members of the body which seem to be more feeble, are necessary," so in these sciences—in their theoretical teachings as well as practical workings, each performs its assigned duty, and the whole combined completes the *Pyramid of Science*.

During the sittings of the National Pharmaceutic Convention in October last, the subject of *Pharmaceutical Education* was fully discussed. To promote this end was one of the primary objects of the organization of the Convention. Three resolutions were therefore unanimously adopted ; the first recommending practical Pharmacutists every where to organize societies for mutual improvement, for the formation of libraries, and for the adoption of rules of conduct calculated to elevate the character of the profession. The second recommends the establishment of Schools of Pharmacy in all large cities. The third urges the claims of apprentices and assistants upon proprietors where no schools of Pharmacy exist—to provide for them books of reference on the several subjects embraced in the practice of Pharmacy ; and the fourth resolution urges the importance of care in the selection of apprentices and assistants, especially with reference to their fitness as regards actual endowments and preliminary education.

We heartily approve of the foregoing resolutions. If in medicine a preliminary course of instruction be requisite to render the applicant qualified to administer to the diseased system, as much importance should be attached to the profession of him who is to compound those medicines which, in the physician's hand, are to be used as remedial

agents, otherwise the physician meets with unlooked for results, and the patient loses confidence as he finds the skill of his attendant baffled.

How or where is this education to be obtained? In the valley that we live in, no other advantages are offered for acquiring a knowledge of Pharmacy than apprenticeships for a series of years, in some Drug establishment, where, as is well known, but little time is offered for the cultivation of the mind, beyond the *Dollars and Cents* of the business. We are glad, therefore, that the suggestion has been thrown out by the National Convention. That more should be done, even those who are engaged in the business will admit. But how or where to begin is the question. At present, so far as we are informed, there are but two Colleges of Pharmacy in the country, one at Philadelphia, and the other at New York. These are too far removed from our Southern cities to exert any influence over us. What shall be done, then, to improve and elevate the standard of Pharmaceutical knowledge in our midst? We answer, just what the resolutions suggest; employers should encourage their assistants to avail themselves of all opportunities for self-improvement. Standard works on every subject appertaining to the subject of Pharmacy, should form a part of the "Shop Furniture." The necessity for the Pharmaceutical training of those who put themselves under our charge, is seen in the relation which the Pharmaceutist, Apothecary or Druggist, stands to the Physician. In every community, he is, directly or indirectly, the dispenser of the medicine upon which the Physician bases his hopes of success. If unacquainted with the characters of genuine medicines, he is likely to be imposed upon. He has that palmed off upon him which, for its impurity, causes anguish of heart to more than one. The Physician, who relies upon his skill, it is true, is disappointed in the inactivity of the medicine, but he generally attributes it to the stubbornness of the disease. Now we do not say that disease will always yield to medicine, be it as pure as it may; but our own observation and experience has taught us that many cases are rendered intractable from the impurity of the medicine administered. It cannot be expected that the Physician would be as conversant with the relative characteristics of genuine and adulterated medicines as the Pharmaceutist. Implicit reliance is therefore placed on his word, and the Physician goes forth on his mission of mercy, risking his reputation on the skill of the Pharmaceutist. Happily for medicine that the *majority* of those engaged in the business, are worthy of all the confidence that can be placed in them.

R. O. C.

ART. XI.—GELSEMINUM SEMPERVIRENS, OR YELLOW JASMINE OF THE SOUTH.

The October No. of the American Journal of Pharmacy contains an interesting article on the above indigenous plant by the Editor, Prof. William Procter, Jr.

The Yellow Jasmine, or *Woodbine*, is a native of the Southern States, and, with its climbing branches, dark green leaves, profuse clusters of beautiful, yellow, trumpet-shaped flowers, and delightful fragrance, is an object of interest, as well as of delight, to the traveler through the dark deep forests of this sunny clime. It is one of those native climbers brought forth from its wild shades, that, entwining itself around our family mansions, adds to the pleasure and happiness of man. But again another virtue, besides those of regaling the senses, is found to be inherent in it. Professor Procter states that a planter in Mississippi, while suffering under a severe attack of Bilious Fever, which had resisted the usual remedies, had, through mistake, a decoction of the root of the Woodbine administered to him. He was in a short time seized with complete loss of muscular power, not even having the ability to raise a limb or move his eye-lids, though perfectly conscious of all that was transpiring around him. The effects, however, gradually wore off, and with it the fever, which returned no more. Thus unexpectedly relieved, he administered it, though cautiously, among his negroes with a similar beneficial effect. His neighbors also adopted the practice, and this plant soon became a popular febrifuge. The Gelseminum belongs to the natural order, Apocynæ, in which is also found the Dog's Bane and the Indian Hemp.

Medical Properties and Uses.—To prepare the root for use as a remedial agent, take of the green root bruised, *four ounces*; Diluted alcohol or whiskey, two pints. Digest for fourteen days, express and filter. The tincture has a dark red color, and a pleasant bitter taste. Dose ten to fifty drops. Dr. F. D. Hill, in the Eclectic Medical Journal, Cincinnati, places it among the stimulants, tonics, and anti-spasmodics. Gentle diaphoresis attends its use. If in large doses, extreme relaxation and general prostration follows, and it is supposed to exercise more control over muscular irritability and nervous excitement than any other remedy. When dimness of vision and giddiness begins to supervene, it is to be suspended, as the full specific effect is then obtained, and the further use is attended with

risk. Administered in all types of fevers, nervous and bilious headache, and chorea. It should be carefully prepared and judiciously administered. A gentle aperient should precede its use, and in case of an overdose, stimulants and tonics are to be resorted to.

We have thus condensed Professor Procter's article, and commend it to the trial of some of our medical brethren.

P. S.—Since placing the foregoing in the hands of the printer, we have received the following letter from Dr. W. L. Jenkins, who formerly resided in Mississippi, and is acquainted with the use of the Woodbine. Accept our thanks, Doctor, for the prompt and interesting reply to our letter of inquiry, and we hope to hear from you again. Understanding that a friend of ours had the real Mississippi Yellow Jasmine growing in his garden, we gathered some of the root and stem, and forwarded slips to Dr. Jenkins for his inspection, and in a second letter he informs us that it is the true plant. We have accordingly prepared the tincture, and will avail ourselves of the first opportunity to test its virtue. R. O. C.

CASTALIAN SPRING, TENN., NOV. 18, 1852.

DR. R. O. CURREY :

Dear Sir :—Yours of the 13th inst. is before me. In relation to the Jasmine, I will give you cheerfully all the information in my possession at present :

The Jasmine is not the *Yellow Jasmine* of this section ; it is of Southern growth, and a perennial ever-green, leaves lanceolate, glabrous, opposite, growing upon tendril-like branches shooting from the vine. The vine itself resembles somewhat the Yellow Parilla, and in some respects the Woodbine, but it is very different from either. It blooms in March, in Mississippi and Louisiana. The flower is yellow, and of such fragrance as to be wafted for miles upon the breeze without wasting. The bark of the root is the part used in obtaining the extract. In order to prepare a tincture, take the bark of the roots, *bruised while fresh*, (drying seems to weaken it,) and add spirits of wine or good proof brandy. Macerate for the usual period, agitating the vessel several times a day. The warm process is not recommended, as without doubt there escapes a volatile principle, whose presence in the medicine is indispensable in the wonders it performs as a *diffusive, narcotic, stimulating* relaxant. It is given in the form of a tincture, in doses from a half to a teaspoonfull and a half, and continued at intervals of one

and two hours, according to necessity, in *all cases of nervous excitability*, local or general. It is particularly efficient in neuralgic affections of the face or head. For Tetanus, especially that form known as lock jaw, it may be relied on with definite certainty.

Its physiological effects are similar to those of the Stramonium, and hence, after Dr. Speed had first commenced the use of it empirically, many, seeking the remedy, usually have fallen upon the latter with no little mischief.—The patient soon feels a sensation of blissful drowsiness, with a physical inability to move even the eyelids; the pupils dilate; the jaws become so suddenly relaxed that the chin falls. Succeeding these effects, or co-existent with them, it exerts a very fine diaphoretic influence over the whole system, especially in the various types of fever. I do not say that it is or is not *narcotic*, for the effects are very different, in many respects, from what we usually understand by a narcotic. This is to be decided by future analysis and observation. I generally call it a *universal relaxant*. For the cure of Intermittent or Synochal Fevers, I administer it freely during pyrexia, and then administer the usual tonics during apyrexia, and for this reason it has obtained the name of the Mississippi Fever Tonic. At the North it is called “Electric Febrifuge,” &c. I regard it as destined to fulfil, at no very distant period, a desideratum in the treatment of fevers, whose cause is in the nervous or circulating tissues of the system. Hereafter I may be prepared to enter into a more systematic detail of the therapeutical importance of this article. While at Panama and Havana, I was informed that it was used by the Barcelona School with singular success. As my notes are absent, I have had to rely on memory, and hence I am more deficient in complying with your request than I might be; but I trust you may be able to gather a few items which may subserve further research.

Yours truly,

WILLIAM S. JENKINS,

ART. XII.—THE ADULTERATION OF MEDICINES, CHEMICALS, &C.

At the last annual meeting of the Tennessee Medical Association, the Editor of this department of the Southern Journal was appointed the Chairman of a Committee to prepare an essay for the next session, on "the Adulteration and Sophistication of Medicines and Chemicals."

That the adulteration of medicines has become a great evil that needs to be remedied, is a fact which no one will dare controvert. This evil has, however, within the last few years been considerably abated. Previous to 1848, every ship that came bounding over the waters, was freighted with these base and counterfeited articles for American consumption, making this the mart for all the old and deteriorated, as well as adulterated, drugs of the European Inspector. Readily detected at the ports of entry, they were passed and hurried to the West, as a more fit market for their sale. To remedy the evil, petitions signed by the Medical Faculty and honorable Pharmacutists, were urged upon our Congress in 1848, praying for the passage of a law to prevent such importations, and Congress, in its wisdom, granted the prayer of the petitioners. Numerous obstacles were attempted to be thrown in the way by those whose traffic was in danger, but all to no purpose. The law provided for the appointment of competent Examiners at each of the ports, pronounced forfeited every article that fell below a fixed standard of purity. The law has now been in force for nearly four years, and such is its popularity that not a single petition has gone before Congress for its repeal.

No class of men are more deeply interested in the rigid enforcement of the law than Physicians. Their success depends, in a great degree, upon the purity of the remedial agent employed. Repeated failures to cure disease always endangers the reputation of the medical attendant. The epithet "unsuccessful practitioner," sometimes attaches itself where probably it is undeserving, and yet who stops to inquire whether it be the medicine or the physician at fault. And even should it be ascertained to be the result of impure or adulterated physic, the opprobrium still fixes itself upon him, for should he not have been aware of the quality of the medicine administered? Thus would reason four-fifths of the community, and we dare not say that they reason incorrectly. While it may happen that dishonest Druggists will impose upon the unsuspecting Physician, and palm off upon him some useless trash, (we cannot say *harm-*

less,) does it not also sometimes happen that medical men favor the sale of CHEAP DRUGS? Does not the price of an undoubtedly genuine article sometimes constrain the purchaser to make choice of a cheaper drug, notwithstanding its inferior quality? As a general rule, the most useful and valuable medicines of the *Materia Medica*, when of undoubted purity and genuineness, are necessarily costly; hence the very price demanded for them, in the absence of all other evidence, is a test of their character. No Druggist could have the baseness to affix to India Rhubarb the price that the true Turkey commands, and yet there are Physicians who will tell you that they have purchased the latter at \$1,50 per pound. Are they aware that the importer's price of the true Turkey Rhubarb is scarcely ever below \$5,00 per pound? But there are other articles which, in truth, had a genuine origin, and yet, for some reason, in their passage through several hands, they become, not like silver or gold, brighter by use, but *tarnished* and weakened, like the pure metal when it passes the hands of the counterfeiter. And how is this? Opium contains Morphia, which a little maceration in a proper menstruum will extract, after which the half exhausted, but still the Turkey Opium, is thrown back into the market to pass into other hands. Peruvian Bark, if the true Calisaya, contains the valuable alkaloid, Quinine. Double profits can be secured if this bark, without breaking up, is made to give up a part of this valuable ingredient; and lo! again from the operator's hand, as from a magic wand, go forth two substances, the original bark, still quilled and unaltered in external appearance, and the Extract of Bark. Thus medicines are weakened by being deprived of their active principles, for the sake of securing greater profits. But there is a greater evil. This exists in the *adulteration* of certain costly and valuable medicines, and in every instance more danger is to be apprehended, and more mischief is actually done, by those foreign admixtures than if the patient had been left to the *vis medicatrix naturæ*. Many of these are rendered thereby truly poisonous. Does your Ipecac possess a sweetish as well as nauseous taste? You may safely conjecture the presence of powdered Liquorice root. You may have thought that your shelves held a pure specimen of virgin Scammony. At what price did you purchase it? You may reply at three, five, or even eight dollars per pound. Well, did you know that virgin scammony is one of the rarest medicines to be found, and that its original cost is near ten dollars per pound, the importer's price; and that the greater part of the virgin scammony sold in this country, which

should contain seventy-eight per cent. of pure resin, is a worse than worthless admixture of chalk, flour and clay, with about twenty-eight per cent. of resin? Have you been able to administer hereculean doses of Calomel without obtaining any of the effects of that truly valuable and powerful remedy. How much chalk and sulphate of baryta do you think you administered in each dose? Your Quinine fails to exert its specific influence, even in the mildest cases of intermittent fever, and while you are losing confidence in the best of specifics, your patients begin to turn the cold shoulder to you. That quinine is a base counterfeit, notwithstanding it may bear the signature and stamp of a reliable manufacturer. It is just as easy to manufacture stamps and labels as it is to adulterate medicines. Not long since five hundred ounces of quinine was admitted through the port of New York, the product of a celebrated French Chemist. It was bought up by a New York Druggist, and thence passed to Boston. An order was received from California for a lot, and this was obtained to fill it. Previous to shipping, it was again inspected, and lo! during its passage from the port of New York, it had imbibed twenty-five per cent. of mannite. When or how it had been thus adulterated, it could not be ascertained, though we opine it would not have been a difficult task to have traced out the perpetrator of the base act.

Need we adduce farther examples of this greater evil? No wonder that the taunt and the jeer is so often cast into the Physician's face. "Give physic to the dogs," is an expression that must have originated from some such source; and viewed in this light, it meets with a hearty response every where. It is as much, then, the duty of the Physician to know what he is administering, as it is to know the nature of the disease which he wishes to relieve. It is not enough to say: Here, this is calomel, or quinine, or ipecac. He should know confidently that it is what it purports to be. To aid, therefore, in the detection of these base impositions, we have collected and thrown together, in a condensed form, a few observations on the origin and genuine character of medicines, the different substances with which they are adulterated, and the mode of detection—the uses and doses. And for the sake of convenience, we will endeavor to follow the alphabetical arrangement.

In our next number we will precede our notices with observations on *Home* adulteration—that kind which is practiced by the dishonorable of our profession every where. Difficult would it be to adulterate the genuine medicine while in its original state; but in

the form of powders, tinctures, syrups or extracts, which can be prepared every where, these genuine medicines are susceptible of the basest adulteration. All of these are on a par with an article of hive syrup, which we know to have been vended in this city within the last ten years—of which a teaspoonful would have no effect, even on an infant. But more of this in our next.

Acaciæ Gummi.—Gum Arabic is an exudation from the *Acacia Vera*, a native tree of Upper Egypt and Senegal. The pure gum is in white round masses, of a brittle and crackly appearance. Its pure appearance distinguishes it from the other inferior gums as Senegal Gum, East India Gum, &c., with which it is sometimes mixed. These latter are always of a yellowish or reddish color, coarse texture, and in agglutinated masses.

TEST.—Pure gum is perfectly soluble in water without swelling, from which solution it is precipitated by alcohol. The presence of Senegal Gum affords an active precipitate with the salts of the peroxide of Iron, while a slight red coloration would be given with the true Gum Arabic. It is in the powdered state that these tests are of the most value, when it is impossible to detect by the eye, as can be done in the solid state.

True gum is incompatible with sugar of lead, ether and spirits. Used as a demulcent, and as an excipient for pills and lozenges.

Acetum.—Vinegar is the product of a peculiar fermentation which alcoholic liquors, such as wines, cider, &c., undergo, under favorable circumstances. Pure alcohol of itself has no tendency to this change, yet the addition of a portion of yeast sets up a new order of elements, and acetification begins. Pure Vinegar has a pleasant taste and yellowish color, and when exposed to air undergoes a still further decomposition.

Adulterations.—Sulphuric, nitric and muriatic acids, together with acrid vegetable substances, are frequently added to water for the purpose of manufacturing the commercial vinegar, to which is also added grains of paradise, cayenne pepper, &c., to increase its pungency. Vinegar thus prepared is unfit, either for medicinal or culinary purposes. The cucumber, when immersed in this adulterated article, is very soon resolved into a soft spongy mass.

TEST.—Sulphuric acid may be detected, first, by the evaporation of a portion with white sugar, and if present, the sugar will be charred; also, secondly, by acetate of baryta, which throws down an insoluble sulphate of baryta. Nitric acid is detected by sulpho-indigotic acid, or by the addition of salt and carbonate of potash,

and then evaporating to dryness. If then a mixture of diluted sulphuric acid and gold leaf be poured upon the mass the gold, will be speedily dissolved by the formation of the nitro-muriatic acid.

The incompatibles of vinegar are the stronger acids and alkalies. Used as a refrigerant in fevers, also in diseases of the urinary organs.

Arsenious Acid.—The Arsenic of commerce is always to be obtained in the form of powder. It is white, inodorous, and of a sweetish taste. In the crystallized state, it is in vitreous cakes, resembling porcelain. It is obtained during the smelting of cobalt ore in Bohemia and Saxony. When powdered it is adulterated with chalk, phosphate of lime, plaster of Paris, and sulphate of baryta. These adulterations are, however, readily detected by the readiness with which the arsenic volatilizes on the application of heat.

As our object at present is only to draw a contrast between pure and adulterated remedial agents, it does not devolve upon us to discuss the detection of arsenic itself when used for criminal purposes. It has been administered in a variety of diseases, and is believed by many to be a potent remedial agent, yet from judicious motives its use is almost entirely proscribed.

Acid Citric.—Belonging exclusively to the vegetable kingdom, and existing in lemons, limes, sour oranges, tamarinds and tomatoes. By expression the juice is obtained, from which the acid is readily crystallized. The crystals are white, inodorous, and in rhomboidal prisms, possessing a sharp sour taste, soluble to some extent in water, and insoluble in alcohol. The value of this acid has caused it to be subjected to various adulterations, such as with lime, tartaric acid, and sulphuric acid. The sulphate of lime, with which it is frequently adulterated, may be attributed to faulty preparation.

TESTS.—Chloride of barium, when added to a solution of the acid, takes up the sulphuric acid, if it be present, and the insoluble sulphate of baryta falls as a white precipitate. Muriate of potash also detects the tartaric acid by the formation of tartrate of potash.

Lemon syrup of commerce, in too many cases, is made exclusively of tartaric acid. According to Joubert, citric acid precipitates baryta, and not lime, from their solutions, whereas tartaric acid has the opposite effect. Moreover, citric acid is deliquescent, while tartaric acid is not. Used as a refrigerant in the preparation of lemonade, the neutral mixture, and effervescing draughts.

Acid Tartaric—Another peculiarly vegetable product, being found in grapes, tamarinds, and the pine apple. When freshly prepared, it presents white, inodorous, semi-transparent prismatic crystals, so-

soluble in water and only sparingly so in alcohol ; not changed by exposure to the atmosphere. It is fusible by heat, passing through several changes, according to its intensity. The odor of burning sugar,—caramel,—is distinctly perceptible when a few crystals are thrown on hot coals. Nitric acid converts it into the oxalic, and sulphuric into the acetic acid.

Adulteration.—Pereira mentions cream of tartar as the only adulteration of powdered tartaric acid. This salt, the bi-tartrate of potassa, being nearly insoluble in water, leads to its detection. But it also sometimes contains sulphate of lime or potassa. The baryta test will detect the presence of sulphuric acid. The lime and potassa by heat, as they will be left after the incineration of the portion of the acid under examination. Used in effervescing draughts.

Argenti Nitras.—Nitrate of Silver—lunar caustic. Three articles appear in commerce : the crystallized, No. 1 and No. 2, the first being pure, the second containing sixty per cent. and the third only thirty per cent. of silver. The first is found in crystals, the other two in rolls wrapped in paper. This chemical is prepared by the action of nitric acid on metallic silver. By the evaporation of the solution the crystals are formed. These, variously mixed with other substances, are fused and moulded to form the inferior varieties. No. 2. should never be used.

Nitrate of silver has a metallic caustic taste, and blackens when exposed to light and air. It is adulterated with nitre, lead and copper. The nitre may be detected by means of hydrochloric acid, which, uniting with the silver, sets the nitre free for crystallizing. Copper, if present, affords a blue color with caustic ammonia ; and lead is detected by sulphuretted hydrogen. The silver is first to be precipitated by hydrochloric acid, and then to the remaining liquid, add the sulphuretted hydrogen, when, if lead be present, the fluid is blackened.

Nitrate of silver is very valuable, either for internal or external use. Internally administered in epilepsy, chorea, chronic affections of bowels, &c.—externally as an escharotic to ulcers, burns and scalds ; diseases of the eye, inflammatory affections of mouth and fauces, and to strictures of urethra and œsophagus.

Dose.—One sixth grain, gradually increased to three grains daily, in form of pill. Bread is objectionable as an excipient for the pills, on account of the salt it contains. A vegetable powder with mucilage is preferable.

R. O. C.

ART. XIII.—PHARMACEUTICAL NOTICES.

1. *Veratrum viride*—saturated tincture of American Hellebore of Dr. Norwood. There is considerable discussion at present going on among some of our Southern Practitioners in reference to the value of the *veratrum viride*, as a remedial agent. The preparation used, is Dr. Norwood's saturated tincture. The advocates of the new remedy strongly contend for its utility in various diseases, among which may be mentioned Pneumonia, Typhoid Fever, Pertussis and Catarrhal Fever. Dr. Branch, of S. C., states that he has been using it for months in pneumonia as well as typhoid fever, in doses varying from three to twelve drops of the saturated tincture of Dr. Norwood, and he considers it as one of the most valuable discoveries of this or any other age. He always conjoined opiates or stimulants, and sometimes both with it. Paregoric as an opiate and brandy as a stimulant were preferred. At the same time, he used the showerbath, blisters or alteratives, as the cases might require. Dr. Branch's article on this subject we found in the *Charleston Medical Journal* for September.

Dr. Blackburn, of Ga., also furnishes for the same Journal an article on this same subject. He says, "I have given it in pneumonia, catarrhal fever, and pertussis, and I have never failed to reduce a morbidly increased circulation to a healthy standard. Nor have I ever seen any unpleasant symptoms accompanying its therapeutic action, save nausea. I have given it to infants with the happiest result. I have lost only one case of pneumonia out of fifteen since I commenced relying upon the *veratrum viride* as a controller of the circulation."

Dr. Geo. B. Pearson testifies that "in pneumonic inflammation, whether typhoid in character or synchoid, there is always increased celerity of the pulse, preternatural heat, &c. The remedy seems well calculated to fulfil the obvious indication of reducing the pulse, abating the heat, &c. Its extreme effect resembles that of Lobelia."

Dr. T. T. Robertson, of Winnsboro, adds: "I also believe that with it, we can do something more than simply conduct typhoid fever through its stages, I believe we can cure it."

On the other hand, Dr. Pendleton was disappointed in the effects of this medicine, and does not hesitate to denounce it in round terms

in the same Journal. We do not like, however, the spirit in which he does so. That "*experimentalism in medicine*" of which he so disparagingly speaks, has been the means of elevating the science and commending it to favor. Neither medicine nor any other science, is satisfied with the attainments of to-day. It stretches forward, and aided as it is by a host of noble sciences, all contributing their offerings to promote the general welfare and happiness of man, it is destined to accomplish yet greater results. What has gone with the prescriptions of older times, of lizards toes, and frog skins. They had their day in the age that gave them birth. The prescriptions of the present day are not even as they were twenty years since. As science opens up the secrets of the vegetable and mineral kingdom, new discoveries are made, all tending as well to the amelioration of the physical, as the moral and social condition of man. But it may seem strange that in our Pharmaceutical Department we have allowed ourselves to wander off upon the therapeutic effects of a new remedy.

Veratrum viride is also called American Hellebore, and according to Dr. Wood, Indian Poke and Poke Root. It should not be confounded, from their common names, with the *Phytolacca* or Poke Root properly. The *veratrum* is indigenous to the United States, growing in swamps and wet places. The root is the part used, and should be collected in the autumn. The form in which it is most usually administered is that of tincture. Of the saturated tincture from three to fifteen drops is the dose—Dr. Branch never prescribes at first more than six drops—seldom more than four—until he "arrives at the susceptibility of his patient, and increases a drop at every subsequent dose until the wished for effect is produced, to wit: A cool surface, a pulse reduced to the desired standard as to frequency, but never diminished in volume, strength, or any other necessary quality, and here I hold it 'firm and fast' for a few days, which generally breaks up the case."

We understand that it has been employed to a large extent at Huntsville, Ala., and we would be pleased to hear from some one of the Faculty on the subject.

2. *Experiments in Cod Liver Oil*.—Dr. F. L. Winckler in the "*Neues Repertorium for Pharmacie*," for a translation of which we are indebted to the London Pharm. Jour., through the columns of the American Jour. Pharm., has been instituting some very interesting experiments in order to obtain correctly the active principles of Cod Liver Oil. Dr. Winckler was led from his investigations to regard

Cod Liver Oil as an organic whole of a peculiar chemical composition, differing from all other fatty oils. He concludes his experiments with stating that one series of analyses yielded him oleic and margaric acids and *oxide of propyle*, and another series *propylic acid*. *Glyceryle* $C_6 H_3$ has been supposed to exist in it, but he ascertained that it was replaced by propyle $C_6 H_6$. When ammonia was added, the propylamine results, and this happens in no other fatty oil, and hence no other oil can supply the place of cod liver oil in the *Materia Medica*. There is a possibility that cod liver oil undergoes such a change in the system as to generate propylamine. This principle was also found by him in the normal urine and sweat. He does not deny the presence and value of iodine in the oil, but states that the *oxide of propyle* and *propylamine* are both clearly allied to iodine. All the researches upon the character of cod liver oil strengthen its importance as a remedial agent.

R. O. C.

ART. XIV.—PHARMACEUTICAL PREPARATIONS.

Sarsaparilla Syrup.—Take Sarsaparilla, ground, six ounces.

Bitter sweet and Pipsissewa—each, four ounces.

Liquorice Root—coarse powder,

Guaiacum wood “ “ each two ounces.

Sugar four ounces.

Alcohol two ounces.

Diluted Alcohol seven pints.

Water q. s.

Oil Wintergreen,

Oil Sassafras, each four grains.

Mix the solid ingredients—pour over them in a suitable vessel five pints of diluted alcohol, allow them to macerate for one week, and remove the whole to a displacement apparatus, in such manner that the fluid shall not pass too freely; return the tincture several times, then displace the absorbed portion first with the remaining two pints of diluted alcohol, and afterwards with water very gradually added till eight pints of fluid have passed. Remove alcohol by distillation

to one-half, then by means of water bath evaporate the residue to twelve fluid ounces, and add the sugar, and the two fluid ounces of alcohol in which the assential oils have been dissolved. Let the mixture stand for four hours with occasional agitation, and strain.

Dose one teaspoonful in any convenient vehicle.

Fluid Extract of Rhubarb.

Take of Rhubarb, eight ounces.

Sugar Powdered, two ounces.

Diluted Alcohol, two pints.

Tincture of Ginger, one ounce.

Powder coarsely the Rhubarb, mix it with its bulk of sand, moisten with diluted alcohol, and after the drug has settled by maceration for one hour, remove it to a suitable displacer, and add diluted alcohol slowly until two pints of tincture have passed. Evaporate this in a warm bath to six fluid ounces, add the sugar and finally the tincture of ginger.

Solution of Citrate of Magnesia.—First prepare six twelve-ounce bottles, and fit to them corks of the best quality.

Take of Citric acid, six ounces.

Carbonate of Magnesia, four ounces.

Lemon Syrup, twelve fluid ounces.

Water, q. s.

Dissolve the citric acid in two pints of water, previously heated; add to it three ounces and a half of the carbonate of magnesia, and as soon as it is dissolved strain or filter, as the case may demand, distribute it equally between the six bottles, and add to each two fluid ounces of lemon syrup. The remaining half ounce of carbonate is triturated smoothly with sufficient water to make six fluid ounces, and a fluid ounce of the mixture added to each bottle, which should then be filled with water and immediately corked and tied over securely. In the course of half an hour, with occasional agitation, the carbonate will be dissolved, and the eliminated carbonic acid retained by the solution if the corks prove good.—*Wm. Procter, Jr., American Jour. Pharmacy, Vol. XVI.*

ART. XV.—ON THE CHEMICAL AND GENERAL EFFECTS OF THE PRACTICE OF INTERMENTS IN VAULTS AND CATACOMBS.

Although much has been said and written on the decomposition of the human body after interment in the earth, (the only proper mode,) but little has been known respecting the process and results of such decomposition when modified by the corpse being placed in a vault or catacomb. In order to arrive at some satisfactory conclusions upon this subject, Mr. Walter Lewis, of London, under the direction of the General Board of Health, undertook, in the years 1846 and 1850, an examination of the vaults and catacombs of that city, together with the analysis of the gases resulting from the decomposition of bodies in such receptacles. An article by Mr. Lewis, in the *London Lancet*, gives some account of his researches, which are the more interesting, as the results are contrary to opinions generally entertained even by chemists.

He visited the vaults of the principal churches of London, noted the external appearance of more than 22,000 coffins, and the contents of nearly a hundred, and several times tested or analyzed the atmosphere of the vaults. In no case did he discover the slightest trace of cyanogen, hydrocyanic acid, or phosphuretted, sulphuretted, or carburetted hydrogen, except a very minute quantity of sulphuretted hydrogen in the air of a single vault, which contained but few coffins. The corroded parts of old leaden coffins were always found to be carbonate of lead, with no trace of sulphate or sulphuret. Some of the coffins contained ammoniacal gas in large quantities, and others none at all; but, with this exception, the contained air was nearly alike in all, being composed of nitrogen, carbonic acid, common air, and animal matter in suspension. When ammonia was present, it overcame every other odor; when absent, the smell resembled that of very putrid moist cheese. The result was the same, whether the interment had been made a few weeks, or a century and a half previously, and whatever the cause of the decease, or the age at which it took place. Out of all the coffins examined, but twenty of the leaden ones had been bulged by the pressure of the gases generated in the interior. This is only about one out of a thousand, and shows that the gases are formed very slowly. Mr. Lewis, besides his own investigations, made diligent inquiries of all the clergy, churchwardens, sextons and undertakers in every parish, and could not ascertain that a coffin had ever been known to burst suddenly from the pressure of the confined air. When one becomes bulged, or, as the sexton says, "blown," it is customary to make a small aperture in it, to which a torch is applied as an antidote to the noxious effects of the escaping gases. Several persons, whom Mr. Lewis consulted, had heard of cases in which the gases caught fire; but,

after searching inquiry, he could not find any one who had ever seen them burn.

Mr. Lewis' experiments were confined to vaults and catacombs, where the process of decomposition goes on under very different circumstances from those that attend open exposures or interments in the ground, and it is only concerning them that we can draw our inferences—which are, that the deleterious emanations that haunt these depositories, may continue a hundred years after they are closed; they are not rendered noxious by poisonous gases generated during the process of decomposition, but by the animal matter itself, with which, if ventilation is not allowed, the air finally becomes saturated; that nitrogen and carbonic acid, holding animal matter in suspension, steadily, but quietly, make their way through the pores of lead coffins, and, by some means, to the open air, so that, at the end of fifty or a hundred years, nothing remains but a few dry bones, though the coffins are still sound and unruptured. What their effect upon the living constitution is, Mr. Lewis sufficiently experienced in his own person. First, upon exposure, came nausea and vomiting, then diarrhœa, and the next day throbbing pain in the upper part of the head, great prostration, utter loss of appetite, and an unpleasant earthy taste in the mouth. After continuing his investigations for a long time, he was attacked by a series of biles, followed by erysipelas.

The complete decomposition of a corpse, and its resolution into its ultimate elements, takes place in a leaden coffin with extreme slowness. In a wooden coffin, the remains, with the exception of the bones, vanish in a period of from two to five years. This period depends upon the quality of the wood, and the free access of air to the coffins. But in leaden coffins, fifty, sixty, eighty, and even a hundred years are required to accomplish this. "I have opened," says Mr. Lewis, "a coffin, in which the corpse had been placed for nearly a century, and the ammoniacal gas formed dense white fumes when brought in contact with hydrochloric acid gas, and was so powerful that the head could not remain near it for more than a few seconds at a time." Mr. Lewis, in conclusion, recommends, "that interments in vaults and catacombs be no longer permitted, as they are but so many active volcanoes, constantly emitting poisonous effluvia; and that the use of leaden coffins should be entirely discontinued." "To render the human body perfectly inert after death, it should be placed in a light wooden coffin, in a pervious soil, from five to eight feet deep."—*Year Book of Science.*

DEPARTMENT OF DENTAL SURGERY.

ART. XVI.—THE TEETH, AS OBJECTS OF STUDY.

At a time when Dental Surgery, fully recognized as a Medical Science, has begun to be incorporated in the curriculum of the Colleges as an indispensable part of a medical education, the organs which it has for its care become objects of increased interest.

We propose, therefore, to designate a few points wherein the teeth are especially worthy of study on the part of medical men. In doing this we will confine ourself to the teeth themselves, without reference to their connections either with the neighboring parts or the general system.

Indeed the importance of these connections have never been lost sight of by the profession. The celebrated John Hunter, who is charged with having propagated the erroneous doctrine, that the teeth are inorganic, and who certainly did regard them as "extraneous bodies with respect to a circulation through their substance," was nevertheless well aware of the nature of their relations. He urges attention to the teeth "not only for the preservation of themselves," but "also on account of other parts with which they are connected ; for diseases of the teeth," he continues, "are apt to produce diseases in the neighboring parts, frequently of very serious consequences." * * *. "Their diseases, considered abstractly, are indeed very simple, but by the relations which the teeth bear to the body in general, and the parts with which they are immediately connected, they become extremely complicated." *

M. Jourdain, of France, who was cotemporary with John Hunter, insists in his writings upon the importance of these connections, and

* Natural History of the Teeth.

his work on the *Surgery of the Mouth* is replete with cases in illustration of it. He illustrates the pathological relations of the teeth with the antrum of Highmore, the tongue, palate, maxilla, and salivary glands, with the eyes, the ear, &c., with the stomach, intestines, uterus, brain, and general system. And he draws a strong line of discrimination between true Dental Surgery and what he terms the "*mechanism of dentistry*," urges the attention of Surgeons to the former, and ends his work by saying: "We must be faithful and diligent in the study of this essential branch of the healing art—the SURGERY of the MOUTH." *

The sympathy of the general system with the teeth, in a diseased condition, has subsequently attracted the special notice of medical writers, and none perhaps have more forcibly illustrated it than Dr. Rush, who traced many cases of disease to the bad condition of the teeth, such as dyspepsia, neuralgia, epilepsy, rheumatism, fever, &c.

The teeth themselves, however, were formerly regarded as comparatively unimportant, and their diseases, "considered abstractly," as very simple. Hence their study and treatment were neglected by the profession, and the care of them fell into the hands of whomsoever saw fit to assume this responsibility. So long as the dentist confined himself to the teeth, little danger was apprehended; though he was often admonished against transcending his limits or rebuked for doing so. John Hunter, in speaking of abscess of the jaws, says: "In such cases, it is but too common for the dentist to be very busy, and perhaps do mischief through ignorance." But dental surgery, in its comprehensive sense, had not as yet been abandoned by the medical profession.

Thus it appears that the great error which physiologists of former times fell into, consisted, not in a lack of knowledge concerning the connections of the dental system, but in a misconception as to the nature of the teeth themselves; an error which has continued prevalent down to the present time. Every observant Physician is well aware of the important sympathies of the dental system, while at the same time the teeth seem to be generally regarded by the profession as of little consequence, either as objects of pathological or physiological investigation. And to this latter cause, aided by others, we think is to be traced the decline of dental surgery and its

* Diseases and Surgical Operations of the Mouth, translated by Dr. P. H. Austen.

almost entire separation from medicine. But the researches of modern times have discovered in the teeth a structure highly organized and remarkably endowed with vitality. The extent of their sympathies is also better understood, easier accounted for, and more fully appreciated; hence the recent revival of dental surgery as a medical science, and the consequent interest which it should elicit from the whole profession.

Professor Horner, in his *Anatomy and Histology*, says :

“Those untractable and mineral-like bodies, the teeth—exciting once almost the doubt of intrinsic organization, now penetrated by the microscope in a wonderful manner, and exhibiting the most surprising organization; an organization so characteristic and permanent, that it has become one of the most efficient means of discriminating in fragments of animals the kind to which they belonged, whether of the present or a former order of the world. Each of the component parts of the teeth, the cement, enamel and ivory, exhibiting a specific organization; its fibrils and its tubules, whose arrangement, in being specific, gives decided character to the specimen in question.”

The zoological and paleontological importance of the teeth consequently rises to the first magnitude; affording, as they do, the principal basis, in many respects, of a natural or physiological classification of existing animals, and the only criterion for classifying many extinct species; contributing remarkably to modify, enlarge and perfect this department of science, and leading to the discovery of lost “links,” and hence to the reunion of sundered parts, in the chain of being hitherto regarded as irreparable or even originally defective.

Hugh Miller gives a graphic sketch, in his inimitable style, of a species of the ancient Celacanth family, which partakes both of the ichthyic and reptilian character, and which, “for untold ages, has had no living representative.” “The jaws were thickly set with an outer range of true fish teeth, and more thinly with an inner range of what seem *reptile* teeth, that stood up, tall and bulky, behind the others, like officers on horse back, seen over the heads of their foot soldiers in front.” In another place, in speaking of a member of the same family, the *Asterolepis*, wherein “immediately behind the front row—in which the teeth present the ordinary ichthyic appearance—there was a thickly set row of huge *reptile* teeth;” he remarks: “The reptile had, as yet, no existence in creation; but we see its future coming symbolized in the dentition of this ancient ganoid; it, as it were, shows the *crocodile* lying entrenched behind the fish.”*

* Foot Prints of the Creator, or the *Asterolepis* of Stromness.

Professor Owen, in his elaborate *Comparative Anatomy of the Teeth*, commenting on the recently discovered *Rhynchosaurus* as a connecting link between the classes Reptila and Mammalia, exclaims: "Our interest rises almost to astonishment, when, in a saurian skull, we find superadded to the horn-clad mandibles of the tortoise, a pair of tusks, borrowed, as it were, from the mammalian class, or rather foreshadowing a structure, which, in the actual creation, is peculiar to certain members of the highest organized warm-blooded animals."

The hard parts of the body are nearly all the relics we possess of a former fauna; and as the teeth are, in many instances, the only durable records of the past, remaining perfect in cases where the bones themselves have mouldered away, it is most fortunate to science that they should present characters so significant—serving not only by their form and relative position, but even by their structure, to designate the place, form and habits of different species and genera.

"So constantly do they correspond," says Professor Agassiz, in his *Principles of Zoology*, "with the structure of other parts of the body, that a single molar is sufficient to indicate not only the mode of life of the animal to which it belongs, and show whether it feeds on flesh or vegetables, or both, but also to determine the particular group to which it is related." "Even the internal structure of the teeth is so peculiar in each group of animals, and yet subject to such invariable rules, that it is possible to determine with precision, the general structure of an animal, merely by investigating the fragment of a tooth under a microscope."

Nor is this all. Comparative dental *Physiology* opens new wonders to the gaze of the naturalist, and pours an additional flood of light upon his science. The formation, development, and decidence of the teeth furnish zoological indications as remarkable as those afforded by form, position and structure; thereby greatly extending our knowledge respecting the animal kingdom, its natural divisions, and the correct principles of classification.

Such revelations, so important in their bearings upon comparative and general anatomy, and consequently upon human physiology—a science inseparably allied to the former—should not fail to elicit the attention of the medical profession. The human teeth especially, solicit investigation, not only as the standard of comparison in odontological researches, but as affording valuable indications of the structure and functions of the human system; such investigation, while replete in itself with interest and profit, greatly contributing to the elucidation of other subjects of physiological and pathological inquiry. In point of structure the teeth furnish invaluable aid to a correct knowledge

of the other hard parts. Dr. Carpenter speaking of the tissues of teeth and bone says, "the structure of both of them is well adapted to demonstrate the distinction between the tissues themselves, and those subsidiary parts, by which they are connected with the rest of the structure." The same might be said with respect to the pathological conditions of both.

It is a curious fact, that a tooth comprises within itself nearly every tissue of the body, from the least organized to the most highly vitalized. Commencing within, and proceeding outward through the natural opening at the apex of the root, we have the pulp, comprising the nerve and blood vessels with their tunics, then the peridental membrane investing the root and giving off a duplicature to the periosteum of the alveolus—which is properly a part of the tooth since it grows with it and wastes away when it is removed—next, in juxtaposition with this osseous structure is the cementum, nearly allied to true bone, then the compact but still highly organized dentine, or ivory, and lastly the enamel or earthy covering, which may be regarded as inorganic. Or commencing without, we pass from a crystalline mineral substance, along a structure of high and still higher organization, to that which is all vitality, all sensibility, the vehicle of impressions to the brain, and through this, of sensations to the mind. Thus affording an instance of a blending and union of organic with inorganic structure, a regular transition from material to immaterial nature, a continuous link between mind and matter.

The germination, ossification, developement, decidence and succession of the teeth, present one of the most beautiful and wonderful series of phenomena in the whole range of physiology. Nor are these without instruction in regard to other vital phenomena. We find in them, taken individually, a repetition of analogous processes throughout the general system, and, collectively considered, a magnified representation of the evolution of the cell-germ upon the one hand, and upon the other, a minature imitation of embryonic developement.

But the vital characteristics of the teeth, as yet but little investigated by medical inquirers in general, certainly much better understood by those who have made this part of the body a subject of practical as well as theoretical acquaintance, present peculiarities and indications equally remarkable with those already referred to. We do not now allude to the connections of the teeth, whether through their nervous and vascular tissues with the general system or with any of its organs, or through the peridental membrane with the

periosteum, bone and muscles of the neighboring parts ; these are indeed worthy of attentive study in consequence of important functions and sympathies ; but we here refer to the characteristics of the true dental tissue, in its normal condition in the living economy.

Apart from its remarkable organization and mode of formation, the dental tissue, or tooth bone, is most certainly endowed—whatever may be inculcated in medical works to the contrary—with all the essential characteristics of vitality—characteristics which though perhaps beyond the cognizance of theoretical physiologists, are nevertheless sufficiently obvious to every observant dental surgeon. This tissue has within itself a system of circulation by which and through which it receives nutrition from the general circulation. It is subject to a grade of inflammatory action, admits of interstitial absorption and deposition to a certain extent, and is capable of, and liable to, accessions and waste of substance, from without and within, as the result both of physiological and pathological processes. It is supplied undoubtedly with nervous fibrils, by means of which it is possessed of irritability, and of sensibility to such an extent as to render the teeth subservient to the purposes of general sensation, and, to some extent, organs of special sensation. In consequence of this they are susceptible, often keenly so, to external impressions as from thermal, electrical, and chemical changes, and even from ordinary tactility. This susceptibility is often greatly heightened by inflammatory action, and may become so exalted as to render the exposed surface of the *dentine* as intolerant of irritants as the dental pulp itself, requiring for its subjugation a course of local treatment preparatory to the operations that may be demanded in such cases.

It is in consequence of these characteristics that the sympathies of the teeth, in peculiar conditions of the system, become so diffuse and complicated, frequently, too, when their own condition, apparently healthy, would seem to furnish no explanation of the cause, but rather to forbid the suspicion of the teeth being in any way connected with the general disturbance. We cannot, however, do more than to allude to these characteristics at present, but we purpose a fuller consideration of them in a more regular way hereafter. They afford good reason for the earnestness with which dentists, looking to the great interests of medical science, and through it to those of humanity, have ever solicited the attention of general practitioners to the province of Dental Surgery.

The necessity of a better knowledge of the nature and treatment of the teeth on the part of physicians has indeed become recognized

in the medical profession. With reference to the dental lectureship recently incorporated in the curriculum of the New York Medical College, the last Annual Announcement of this institution, says :

“ *The Diseases and Treatment of the Teeth.*—The great prevalence of diseases of the teeth, and their frequent complication with those of the nervous system, make it an object of paramount importance to the student of medicine and surgery, to understand the pathology and treatment of the dental system. Even if the physician does not intend to practice in the department of *Dental Surgery*, he should be familiar with the diseases of the teeth, and understand the correct principles which govern their treatment, that he may be able to diagnose those sympathetic affections depending upon dental irritation, give proper advice for the management of the teeth, and become so far familiar with the nature of dental operations, as to discriminate between the skilful dentist and charlatan.”

Neither are the manual and mechanical manipulations of our art to be underrated. Manual skill is, and ought to be, the pride of the surgeon, whether devoted to a specialty or not. Nor do we regard even the mechanical part of dentistry so far removed from the province of medicine as is commonly imagined. A *thoroughly* qualified physician or surgeon—one whose head, heart and *hands* were all fully brought into service in fulfillment of the great mission of his Art—would find himself conversant with exercises quite as mechanical in their nature as the construction and adaptation of an artificial dental fixture. And general medicine will have to draw far more largely than it has done, upon the resources of mechanism, in order to accomplish the high achievements which it contemplates in behalf of suffering humanity.

B. W.

In modern days, Odontology has become a science separate from the dental art. This is because the philosophical value of the teeth is so great as to make them one of the grand means of classification in natural history and comparative anatomy. The microscopic structure of these organs has also been noted with great patience and powers of research. Among those who contributed to the general science of the teeth in the sixteenth, seventeenth and eighteenth centuries, Eustachius, Malpighi, and Leeuwenhoek stand pre-eminent ; and among the best odontologists of our own time are Owen, Nasmith, Goodsir, Muller, the Cuviers, Rosseau, Purkenji, and especially Retzius.—*Robinson's Surgical, Mechanical and Medical Treatment of the Teeth.*

DENTAL EDUCATION.

The subject of Dental Education is unquestionably one of the first magnitude in importance to our profession. It is only by a proper attention to this that the great and permanent interests of Dental Surgery can be advanced either as a science or branch of occupation. We shall therefore take occasion to present, under this head, whatever of interest we may find bearing upon the subject.

ART. XVII.—DENTAL LECTURESHIPS IN MEDICAL SCHOOLS, *vs.* DENTAL COLLEGES.

The *mode* of dental education has recently been undergoing a very general discussion through the dental and medical Journals. This originated from a communication by E. B. Gardette, M. D., Dentist of Philadelphia, published in the Medical Examiner, for April, 1851, proposing the establishment of a Chair or Lectureship of dental surgery in medical schools, as a means of dental instruction, in lieu of dental colleges, already in operation. The proposition met immediate and warm opposition from the friends of the last named institutions ; but it has also been very warmly and ably defended.

Whatever may be said in regard to the merits of the question at issue, its agitation cannot fail to be productive of good, by presenting the subject of dental education in so prominent a light before the dental and medical professions.

Regarding this discussion, from the nature of its bearings, as one of general interest, we shall endeavor to keep our readers advised in regard to its progress, by such abstracts and quotations as our limits will permit. To commence with, we will give a brief view of the main points of debate, proposing, at some future time, a collation of the principle facts and arguments elicited in the controversy.

In favor of the proposed lectureship it is urged—that dental surgery, as a legitimate branch of medicine, demands, in addition to special instruction, a full course in medicine, as taught in the regular colleges, to qualify for its practice ; that the interests of the medical and dental professions require a similar mode of instruction in both ; and that a better knowledge of dental science than is taught in medi-

cal schools, is needed by the general practitioner. It is objected to dental colleges that their range of medical instruction is inadequate to the wants of our profession ; and that the tendency of such separate and independent institutions in medicine is prejudicial to the interests of the common science, by fostering a spirit of rivalry and hostility. A dental chair or lectureship in medical colleges, is proposed as a means of supplying the wants of both medical and dental students, and of bringing about a re-union of dental surgery with general medicine and the other specialities.

The arguments upon the other side are principally based upon the assumed impracticability of the proposed lectureship, and its inadequacy for teaching practical and mechanical dentistry ; and upon the superior capabilities of dental schools. The main objections urged against these institutions are denied ; while it is maintained that they are amply sufficient for what they propose, and the best means of elevating the profession, which, it is thought, contains within itself all that is necessary for its advancement. We need not give the minor points, as the same train of argument may be found in any of the dental Journals, all of which have spoken out in favor of this side of the question, although it is but fair to say that, with one exception, these are conducted by persons connected, as professors, with the class of institutions which they advocate.

In view of the fact last named, we shall give the proposed innovation as full a hearing as our space will allow, although it be at some risk of being ranked with the *rebellion*. But we trust we shall not be found to do injustice to either party. We take no side in the controversy. We believe either system good as a means of dental education, but that neither, considered as an *exclusive* means, is adequate to the present wants of the profession ; and we intend to speak frankly, when at all, of their defects as well as merits. Of their relative merits, perhaps time alone can determine ; however, the *claims* in their behalf should be investigated. Our own position in regard to the matter as it now stands, partakes of the nature of a "compromise," proposing a sort of *amendment* to either of the systems previous to its "final adoption."

If a course of instruction in medical schools, including in their curriculum a chair of dental surgery, is to be the received mode of a dental education, we believe, such is the importance of practical training to the dentist, that there should be connected with these schools dental laboratories, provided with demonstrators of operative and mechanical dentistry, which the student should be required

to attend, to the omission, if need be, of some of the less important medical branches. If, on the other hand, dental colleges are to afford the mode, we believe, such is the importance of medical instruction, that they should require a course of lectures in medicine preparatory to admission or graduation in their halls.

However, we are decidedly in favor of both systems so far as they go, and should be glad to see them in successful operation; nor is there need for regarding them as antagonistic to each other.

ART. XVIII.—DR. GARDETTE'S REMARKS ON THE PROFESSIONAL EDUCATION OF DENTISTS.

We make the following extracts from a communication to the Philadelphia Medical Examiner, replying to an article of Professor Harris, (of the Baltimore Dental College,) published in his Journal of Dental Science.

This is the third and last article published by Dr. Gardette, upon the subject of establishing lectureships of dental surgery, the last two being in defence of the original proposition which was addressed as a "Memorial" to medical colleges, and with reference to the publication of which he says:

"I had no desire nor expectation to open an argument or controversy with other Journals or individuals, as to the propriety or feasibility of the project then suggested solely from a wish for improvement in the mode of educating Dentists. Hence, I was careful to assail no one, but to make a simple proposal, designedly in *memorial form*, for the consideration of medical schools, who, if disposed to give it their attention, would necessarily seek information from all reliable sources, before adopting any plan."

Having disposed of this, with some severe comments upon the Editor of the Baltimore Journal, for a "headlong declaration of war," without provocation, Dr. G. proceeds to notice a remark according to which he is represented as having once approved of the system of instruction in dental colleges, especially that at Baltimore. We must leave the reader to make the connections of the quotations which follow.

"So far from having been '*very decided in my expressions of satisfaction at what I saw and heard at the Examinations of the Baltimore College of Dental Surgery*,' it was, on the contrary, the dissatisfaction

experienced then, which confirmed my previous opinion, that the establishment of dental colleges would not supply the want felt in reference to educating dentists, and would interfere with the eventual standing of the profession itself. It was this strengthened feeling, and none other, that finally induced the suggestion to have dental surgery taught, with all other specialities of medicine, in medical colleges. I am constrained to deny entirely having sanctioned the course of instruction in *Dentistry proper*, which I had the opportunity to see at the Baltimore College of Dental Surgery during two successive years—1848 and 49; the observations and examinations then made, resulted in a permanent belief of its incapacity to fulfil the objects of its incorporation, or meet the hopes and wishes of educated, well bred dentists. I will not attempt to sustain the justice of this opinion by inquiries, that might be regarded as unkind or invidious, into practical effects upon the profession and the community, but the defective system through which young men have received half-way medical, and still less dental instruction, will prove itself and its influences in professional histories yet to be written. * * *

“It is but just to remark that the deficiencies I have been compelled reluctantly to refer to, as applicable to one Dental College, may not have equal force in reference to others that are differently organized, if there be such; but the main and general objection to these institutions, has seemed to me to be the sad consequences, present and prospective, that arise in the injurious separation of the dentist from the medical profession. It was in this spirit, and with regard to this serious objection, that my original proposition to have dental surgery taught in medical colleges, was published. I then made no needless reference to the inherent defects of the only Dental College with which I was acquainted. * * *

“Professor Thomas E. Bond says, in his excellent work on Dental Medicine, ‘*An oculist, unless a thorough physician, would be utterly unqualified to treat diseases of the eye*’; and surely this rule scarcely applies more strictly to the oculist than to the dentist, especially when we have under consideration the best mode of educating either.

“Prof. Bond also remarks in the same work, that ‘the practice of dental surgery was long degraded, from causes precisely similar to those evil influences which depressed similar branches of the art. Disregarded by educated men, it necessarily fell into the hands of the ignorant and rude; and precisely as surgery and midwifery have gradually emerged from their barbarous state and attendant disrepute, dentistry is now winning its way, against all opposition, to its proper consideration.’

“Now as dentistry has been degraded by the *same causes*, should not the evil be remedied by the *same means*? The specialities of surgery and midwifery were never separated from *general medicine*, either by *distinct or independent schemes of education*, or by *titles differing from those that are universal among medical men*. These specialities have reached the equality they enjoy with the other departments of the science *chiefly through the medium of professorships* in medical col-

leges devoted to them, and eventually through the character and general education of the men by whom they are represented.

"Unfortunately I do not perceive that 'dentistry is now winning its way to its proper consideration'; for although the number of its practitioners have greatly increased, with the sadly increasing need of them, those who best understand what really constitutes *good* dentists, seek in vain for the proof of the much talked of wonderful advance of dental surgery and dental literature.

"The London Medico-Chirurgical Journal of Practical Medicine, noticing the pretensions of our noisy dental periodicals, has been severely and justly observant of the important distinction between true dental surgery, by which the health and preservation of the teeth are accomplished, and the modern mixture of mercantile and mechanical business in teeth, which characterises a great portion of what is called dentistry in our country. The era in which we live has been prolific of improvement in the manufacture of teeth; but while this has been a valuable triumph, in *honest* hands, for *art*, it has brought with it, I fear, a sad falling off, or increased difficulties to *science*. The readiness to sacrifice permanent utility to momentary show, is, perhaps, among the common errors of the times; it is a weakness natural to vanity and ignorance; and there really seems some danger, such is the almost universal display of white crockery in American mouths, both old and young, that we shall be nicknamed the nation of china-teeth. This comes from the facility and cheapness with which what are termed '*mechanical* dentists' supply sets of mineral teeth, and the great difficulty with which good surgeon-dentists are found, to preserve the natural teeth from disease. These causes seem to work like a two-edged sword, in destroying the luxury of sound and useful masticators. With so enormous a supply of mineral teeth, as are the subject of traffic in this country, (the statistics are incredible,) there must be a corresponding consumption; and the only convenient means of filling human mouths with such teeth, is to empty them of the natural ones. The inference is painful; but I am disposed to think that the great increase in the demand for artificial teeth, or the extraordinary extent to which they are used, should be regarded as an evidence of the decline of dental surgery.

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"The published discussions of certain dental societies, sometimes occupying nearly fifty pages of a periodical, may be referred to as painful evidence of the present condition of dental surgery, and the unfortunate influences, (among which I am forced to include dental colleges,) under which the profession of dentist is fast assuming, or re-assuming, the unintellectual character of a trade. * * *

"These are among the evils that call for cure by a different and better system of education for the dentist, and which, I believe will, not be remedied until he is required to be a medical man, in the true sense of the term, identified, in the source and character of his knowledge, with the profession of medicine." * * *

ART. XIX.—DR. HULLIHEN'S NEW PLAN OF TREATING EXPOSED NERVES.

The treatment of teeth, the nerves of which have been reached by caries, has long attracted the attention of our profession, the object being to save the nerves of such teeth. S. P. Hullihen, M. D., Dentist, of Wheeling, Virginia, has lately presented to the consideration of the profession, an altogether different plan from what has hitherto been adopted or proposed. Dr. H. gives an account of his mode of operating, &c., in a letter in reply to one addressed to him by Dr. C. O. Cone upon the subject, both of which are published in full in the *Dental News-Letter*, (Philadelphia,) and the *New York Dental Recorder*, for October. We give below a brief sketch of the origin of the operation and manner of performing it :

Origin.—In 1845, Dr. Hullihen, previous to plugging a tooth the nerve of which was much exposed and likely to suppurate, drilled a hole into the nerve-cavity to admit of the escape of matter, should it form, after which he found the pressure in plugging to produce no pain. Upon extracting this tooth fifteen months afterwards, preparatory to inserting a set of teeth, he found its nerve healthy, and the hole which he had drilled filled up with an osseous deposit at both ends. This led to a number of experiments resulting in the following :

Operation.—A hole is drilled through the gum and edge of the alveolus into the nerve-cavity of the tooth, and, without separating the nerve, its blood vessels are opened. The drill to be of the size of the nerve at the point perforated, spring temper, shaft smaller than the head, spear-pointed, with one edge longer than the other, and worked by a slack string and weak bow. "The operation may be commenced in either the incisors, cuspidati or bicuspidi, by pushing the drill through the gum down to the alveolar process—about a line back from the edge of the process, and directly over the centre of the root of the tooth to be operated upon : upon the molars, so that the hole will be freely opened upon the main body of the nerve ;" stopping when it commences entering the nerve-cavity. The cuttings are then to be carefully removed, and the hole opened into the cavity with a drill rotated by the fingers. Little pain is said to be experienced from the operation. Its performance is indicated where the nerve is exposed but not inflamed. It requires great care and discrimination, but in itself is simple, and, when properly performed, is said to be remarkably successful.

ART. XX.—CASES OF EFFECTS OF DENTAL IRRITATION, &C.

Paralyzed Eye-Lids from Dental Irritation.—Dr. J. L. Levison, of Brighton, England, relates in the *American Journal of Dental Science* for October, the case of a young lady who had been nearly blind for five days. On opening her eye-lids forcibly, he observed that her eyes “did not appear bright but dull, and besides, there was a want of polish about them. In reply to my question ‘can you see clearly?’ she answered ‘no, all things appear to be dim, as if a mist hung over them.’”—“The young lady was about thirteen years old, of nervous temperament, average size brain, very fair complexion, light grey eyes, and almost flaxen hair. But there was great torpor and feebleness in her constitution. The latter circumstance was obvious by the tardiness which marked her second dentition.” Upon inspecting her mouth, the Doctor says :

“I observed the second molar of the right side, in the upper jaw, still deeply seated within the socket, the gum over it, and the adjoining parts, including a portion of the palate and cheek, presenting a highly vascular condition, the blood-vessels being literally gorged. She did not, however, complain of any particular pain on pressing these parts, but having had much experience of similar cases it occurred to me, that in all probability the motor nerves of the eye-lids were affected from sympathy, arising from buccal disturbance, (another instance of reflex nervous action,) and that they were not the result of any local affection to account for their suspended function, as the eye-lids themselves were in a normal condition. Hence, I proposed lancing the gum, which appeared indurated, and in consequence the confined tooth was not only held ‘in durance vile,’ other organs were implicated. Scarcely had I finished making the crucial incision, by carrying the edge of the gum-lancet sufficiently deep so as to come in direct contact with the superior surface of the crown itself, when instantaneously the young lady was disenchanted; and her spell-bound eyes were once more under her volition. She opened them, stared, smiled, and then expressed her joy that she now could use them without either effort or annoyance.”

There was no return of the paralysis of the eye-lids. Dr. Levison also records the following case :

Indurated Parotid Gland.—A gentleman consulted me, the latter end of the last year, “as he suffered continued pain in his mouth.” He was a tall, thin man, with a good brain and active temperament, but a feeble digestion, and of literary habits ; and his general health was affected in consequence of these combined causes, which were greatly aggravated by his sedentary occupation. All the gums were inflamed and spongy—the teeth generally loose. And the dens sapientiae on the right side deeply imbedded in the gum, as there had not

beenspace sufficient for its developement. It was carious and rough, and acted as an irritant to the whole inner portion of the cheek on the same side. This led me to notice the enlarged and indurated parotid gland, which latter had caused him much anxiety. I removed the tooth, and attended to his mouth, which I cured. And there is every reason to anticipate that the affected and swollen gland will disperse, as the last time I saw my patient it was already softer, smaller, and less conspicuous."

Convulsions Cured by Lancing the Gums.—Dr. V. M. Swazye relates, in the same Journal, as follows :

"In July, 1847, while on a visit to some relations in Canada, I was requested by Mr. S., who had called at my uncle's, with whom I was staying, to visit a child of his, which had been sick for several weeks, and the symptoms were becoming more and more aggravated every day. During the last three or four days, it had several convulsions. The illness was supposed to result from teething. When I saw the child, the parents had nearly despaired of its recovery.

On examination of the mouth of the child, I became convinced from the inflamed and swollen condition of its gums, that the constitutional disturbance was caused by irritation produced by the advancing teeth. The child had a convulsion soon after I saw it ; and as an old woman, a sort of doctress of the neighborhood, had predicted the day before that it would die the next day, between ten and twelve o'clock, saying that mortification of its bowels had taken place, the afflicted mother supposed the infant was in the agonies of death. But the old woman seemed rather happy than otherwise, that her prediction was about to be fulfilled.

Believing that lancing the gums freely down to the advancing teeth, was the only remedy that promised any relief, I took the child from the cradle, and with the consent of the mother, performed this operation. It was relieved, almost instantly, and immediately, on being taken by the mother, it took the breast, and was soon lost in a quiet sleep. Its recovery from this time was uninterrupted and rapid."

ART. XXL.—SPRINGING OF GOLD PLATES IN SOLDERING.

This subject is again being agitated through the Dental Journals. "The cause of plates springing," says Dr. Buckingham, in the April No. *Dental News-Letter*, "some have thought arose from the alloy in the gold ; others from the plate not being properly annealed before the teeth are soldered on ; and others from the plate being unequally heated while soldering. All these may have something to do

with the plate getting out of shape, but I don't think they are the real cause of all the trouble." He ascribes it to the joint effect of the contraction of the plaster, and the expansion of the plate while soldering, and the subsequent contraction of the plate upon cooling. Thus the teeth, by contraction of the plaster, are drawn close together on the plate while hot, so that, by the contraction of the latter upon cooling, they bind against each other, and thus warp the plate. The precautions which he recommends are : 1st, mixing a large portion of sand with the plaster ; 2d, laying a piece of bent wire, as large as a goose quill, in the (palatine) cavity of the plate, previous to covering with plaster ; 3d, placing a piece of paper on the sides of the teeth where they touch. "This paper all burns out, and the space I find closes after the teeth are soldered."

In the October No. *News-Letter*, Dr. J. P. Sholl ascribes the springing of plates to the contraction of the solder, which, when expanded in melting, "incorporates with the plate, and then contracts according to the amount of expansion," thus acting "upon the same principle as a contracting band." He thinks "that for atmospheric plates we ought to abandon gold solder and substitute some other mode of fastening the teeth."

Dr. J. Taylor, in the *Dental Register* for October, refers the "true cause of the springing of plates" to "the nature of the alloy, and the intensity of heat applied in soldering." He says : "An alloy of copper gives hardness and elasticity to the gold, and as the copper contracts more than the gold in cooling, it must tend to spring the plate when used in any great amount, in either the solder or plate." He thinks a plate of twenty-one to twenty-two carats fine, alloyed with two parts of silver to one of copper, "if well annealed after it is adjusted to the mouth, will not spring in soldering, unless, *first* by the application of too much heat, and *second*, by the use of too much solder containing copper, and," he adds, "the union of all the backings of the teeth. This continuous band of gold united, and the joints filled with solder, contracts too much for the plate in cooling, and, as Dr. Castle remarks, 'draws the plate upwards and inwards towards the internal medium line of the central incisors.'" Yet Dr. T. regards the "thorough annealing of the plate as the great thing at this time to be accomplished."

MISCELLANEOUS NOTICES, &C.

DR. DANIEL DRAKE.

Died, at home, on the morning of the 6th of November, Doctor DANIEL DRAKE, of Cincinnati; aged sixty-seven years.

In the death of this distinguished man, society has lost one of its purest and brightest ornaments—temperance an able and zealous advocate, and the medical profession a renowned Philosopher. Doctor DRAKE had his peculiarities, but nobleness marked them all. In very early life, from the promptings of a vigorous and ambitious mind, he was induced to lay down the implements of husbandry, and enter the profession of medicine; and here, without preparatory education, without fortune, indeed without any of the external indications of superior success—with, in fact, nothing but the divinity that stirred within him, he manfully struggled against, and finally overcame, every obstacle which stood in the way of honorable distinction.

One of the Doctor's prominent peculiarities consisted in his partiality for early recollections. He would frequently refer to incidents which occurred when he was a boy, or soon after he commenced the practice of medicine.

Dr. Drake has said and written a great deal worthy of preservation, much of which will doubtless be adulterated and put forth with an air of presumptuous originality over other men's signatures. His work, however, on the Diseases of the Valley of North America, justly entitles him to distinctive regard and immortality in medicine, and is, probably, the greatest achievement of his somewhat eventful life. His style, though occasionally facile, is here marked by strength, vigor and perspicuity, peculiarly characteristic. In a word, it is singularly original, comprehensive and beautiful. A useful work—written by a good and great man, who, though now dead, still speaks encouragingly to aspiring minds.

We knew Professor Drake as an able, instructive lecturer; as a courteous, obliging friend, and as a generous ingenuous gentleman. Such men can never be forgotten. They are Doctors in the strictest sense, *teaching* by precept and example.

W. P. J.

Remarks and Recommendations on the Professional Education of Dentists. By JOHN TRENOR, M. D., of New York.

The object of these remarks is to show, "that in the practice of dentistry, a thorough knowledge of medicine and surgery is absolutely essential to enable the practitioner clearly to understand and successfully to treat the cases which are constantly coming under his care," and to advocate the establishment of a chair or lectureship of *Dental Surgery* in Medical Colleges. The author, who is a learned and experienced dentist, and has been before the profession as a writer for the past thirty years, handles this subject with great warmth and vigor. We shall make room for some extracts in our next. B. W.

A New Method of supplying Artificial Teeth and Gums. By WM. M. HUNTER, Dentist, Cincinnati.

This is the title of a small pamphlet of 14 pages wherein Dr. Hunter describes with considerable minuteness his new method of preparing a fusible silicious cement for the formation of continuous gums upon artificial teeth, and also for uniting the latter to the plate. It is generally known that Prof. Allen of the Cincinnati Dental College has recently taken out a patent for a similar improvement, the validity of which Dr. Hunter contests, and also claims priority of discovery. Both gentlemen seem to have been laboriously experimenting for several years towards the same result, and both deserve credit for their labors. But to Dr. Hunter particularly, are the thanks of the profession due, for his liberality in laying the matter open to all without the restriction of a patent. B. W.

Dr. Hullihen's new operation in cases of exposed nerves is exciting a good deal of attention. Sanguine expectations have been raised in regard to it, and it is thought by some to be the greatest improvement in dental surgery of the age. Dr. S. P. Miller, of Worcester, Mass., has subsequently published his experience with a similar operation, which he claims to have originated, but without detracting from Dr. Hullihen's merits. It appears that Dr. M., had communicated his mode to others some year or two ago. "It would thus appear," says the *Dental Recorder*, "that both these gentlemen have arrived at a new and similar method of treating dental pulps, and each without the knowledge of the other."

Dr. C. C. Allen, of the *N. Y. Dental Recorder*, who in 1846 published an able "Appeal to the Medical Profession in behalf of Dental Surgery," in which he recommends the creation of Dental Lectureships in medical schools, now fills such a lectureship in the New York Medical College.

The *American Journal of Dental Science* offers for the best essay on,
 1. The Causes, Varieties and Treatment of Odontalgia, \$25.
 2. Diseases of the Gums and their Treatment, \$50.
 3. Effects of Mercury on the teeth, gums &c., a set of the Journal in 12 vols.
 4. Mechanical Dentistry, to be illustrated with drawings, \$75.

"We learn" says the *American Journal of Dental Science*, "that Dr. W. H. Dwinelle is engaged in writing a history of American Dentistry, Biography, &c.," and that he has been engaged for two years on a work on Microscopical Dental Anatomy. It also announces "that Prof. A. S. Piggot, M. D., of Baltimore, is writing a treatise on Dental Chemistry and Metallurgy."

SCIENCE has lost one of her warmest devotees in the person of Prof. William A. Norton, who occupied the chair of Agricultural Chemistry in the Scientific Department of Yale College.

OUR ENTERPRISE.

With the present number we introduce the "Southern Journal of the Medical and Physical Sciences" to the notice of the profession. We adopt this mode of introduction in preference to that of issuing a prospectus in advance, as affording a more correct idea of the object and character of the work than could be otherwise conveyed, thereby giving all an opportunity to know something definitely about that which solicits their approbation and patronage. Indeed, it were somewhat presumptive to expect subscribers or contributors to a Journal which they have never seen, and in regard to the nature and design of which they must consequently be comparatively unacquainted.

Excepting original communications from correspondents, the place of which the Editors have undertaken to supply in the present instance, but which we hope hereafter to introduce through our pages, we must offer this number as a Prospectus and Specimen of the Journal. But in doing this, we may claim indulgence for defects almost inseparably connected with a first issue. The publisher requests us to assure our readers that the typographical execution of the subsequent numbers shall, in all possible respects, exhibit improvement upon this.

In regard to the manner in which we have thus far fulfilled our respective editorial duties, it is only for us to abide the "verdict." We cannot ask extenuation for short comings—we *ought* certainly to have done our *best*—but, newly embarked upon the field of labor, some allowance may be expected, in *getting used* to the implements. With these remarks, therefore, we have only to submit our Journal, leaving it to the chances of winning its way to professional favor.

The work will be published twelve months, at all events,—and we hope for many years—being issued and mailed the first of every alternate month.

Members of the profession are invited to furnish short articles of interesting cases, &c., to its pages. Those, particularly, who have been in the habit of contributing to the store house of Medical Science, if pleased with the design of the Journal, as a medium of communication with the profession, will please accept this invitation without further formality, and thereby greatly oblige

THE EDITORS.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
MARCH, 1853.

DEPARTMENT OF MEDICINE AND SURGERY.

ART. XXII.—THE MEDICAL AND PHYSICAL SCIENCES.

It has been said, by one wiser than we, that “the Archetype of science is the Universe, and that it is in the disclosure of its successive parts that science advances from step to step.” If this simple though comprehensive proposition be true, it becomes to every man, but especially the Physician, a matter of the greatest importance to observe these disclosures; and particularly in view of the short catalogue of medical men whose names have been rendered illustrious because of their devotion to the Physical Sciences.

We do not, and will not arrogate to ourself the importance of dictating to members of the medical profession, further than merely to intimate, (and this we do most respectfully,) that there is in no department of scientific or industrial pursuit, such an amount of varied and cultivated talent so unprofitably invested as in the learned profession of medicine.

Ordinarily, the *practice*, if considered alone in a pecuniary point of view, does not pay. And where is the boasted literature of our profession?

Though the Physical Sciences have advanced with unprecedented rapidity within the last half century, it is very evident that we have not in medicine the classic literature foreshadowed fifty years ago. And it occurs to us as a somewhat remarkable fact, that notwithstan-

ding we have inherited the learning of our fathers, we have been but reservoirs—not scientific dispensers. Inseparably connected as medical men are or ought to be, through their profession, with all the sciences, it becomes peculiarly their province to put forth a medical literature, worthy the name, worthy our predecessors, and the present age.

To do this most successfully we should dissuade students from entering our offices, who have not acquired a thorough education; by which we will at least have learned whether they have the capacity and inclination to think—to think wisely—to think profoundly. If all would do this, in a few years we would have a literature of the highest order, commending itself to the judgment and cultivated admiration of the world.

Truth, immutable and unchangeable as the heavens, permeates all the sciences, and the separate departments of each are, equally with the whole, acted upon by a power far above the capacity of finite minds to comprehend. We, however, by searching may find out all, which in our present state concerns us to know; and whether we give utterance to our convictions or not, we can but feel within us that He who gave laws to Moses, on the summit of the mountain, now speaks to each of us, and not alone from the heavens, but from the summit of every mountain, and every table of stone composing the mountain, as well as from all other departments of the illimitable world. And no man, not even the boastful Atheist, can accomplish any useful purpose in life, unless he, too, studies the laws of nature and becomes a worker together with them.

We however know that few persons possess either the versatility of talent, the taste and inclination, or the physical and mental ability, to become eminently distinguished in every department of science; and consequently, to convince ourselves with reference to the importance of each of the great elements of learning, we must attend to the results of investigations among men of singleness of purpose. And to satisfy ourselves with regard to any one of the Medical or Physical Sciences, we have but to observe the conclusions arrived at by those who have devoted themselves exclusively to any one department, and see with what transcendent interest and importance they each invest their peculiar pursuit, and with what comparative indifference they regard all others.

While it is true that singleness of purpose characterizes those who obtain an intimate knowledge of the beauties, perfections and advantages of any science, it is also true, that nature has benevolent,

ly constituted other and more social natures, and probably less philosophic minds, to search after and find the permeating tissues, the connecting links, which bind all the sciences, in one common harmonious brotherhood, and show that each is made to minister to the happiness of man, and all to the honor of the Divine Being.

We care not what may determine an inquiring mind to the investigation of any one of the sciences, it will be to him of all others the most interesting, the most improving, varied, and inexhaustible field for investigation and reflection.

Galen, the prince of Greek Physicians, though influenced by a dream of his father to turn his attention to the profession of medicine, upon that subject alone, is said to have written more than five hundred books.

Indeed, whatever in nature has for any considerable length of time engaged the philosophic mind, has in turn become the instrument of usefulness, the theme of admiration, and has effectually ministered to the sum of human happiness. Take for example the science of chemistry, how intensely interesting and almost infinitely diversified the great truths and principles presented there; and how vastly important their application to almost every department of business, if not to life itself. And who does not look to its future disclosures for the most important triumphs of Medicine?

In reviewing one's own bodily connections with elements of the past, the chemical and vital forces present themselves as peculiarly worthy the most minute consideration of the Medical Philosopher. A few years since and these bodies of ours had no existence. Elements which have become a part of our physical systems, differently combined, have been diffused throughout the world. Probably from every state in the Union—from China, West Indies, and Europe—from rill, river, and ocean—from plain, valley, and mountain, these elements have come to us in organized substances, and after mastication, their nutritious products are further subjected to vital force or motion until they are introduced into the general circulation and become vital.

* * "How august,
How complicate, how wonderful is man!
How passing wonder, He who made him such!!
Who centered in our make such strange extremes,
From different natures marvellously mixed,
Connection exquisite of distant worlds."

It is also interesting and profitable in a medical point of view, to contemplate our medical, physical, and intellectual relation to the ge-

ological character of the country in which we may chance more immediately to reside. As a science, separately considered, geology is worthy the profoundest investigation of the most herculean intellect, and as a department of medical literature indispensable to the practitioner, because of its modifying, if not controlling influence over diseases peculiar to certain geological divisions.

In view of the general disclosures of geology, one may reasonably, or at any rate without being charged with lunacy, come to the conclusion that all nature was originally designed to become possessed of life, and those portions which have ever been subjected only to the laws of gravitation, but await their appointed time in the progressive transformation of matter to become vital. The annual round of spring, the action of the elements and natural affinities, bring about many new combinations. Chemical properties of stone and clay enter into the vegetable kingdom; the animal kingdom is dependent upon this, and through the medium of vital force and animal chemistry these properties of earth are transformed into living animal matter; and thus it is that the laws of nature are continually operating upon crude materials, refining and rendering them more easy of assimilation to man. The mineral kingdom furnishes nutriment to the vegetable; the vegetable to the animal kingdom, and vegetable and animal matter is the destined nourishment for man.

How vast, how interesting, how beautiful and sublime the economy of nature, which permits not even a drop of water to be lost, an autumn leaf to perish, or the smallest insect to decay, without subserving a valuable purpose !

“See dying vegetables life sustain;
See life, dissolving, vegetate again.
All forms that perish other forms supply;
By turns we catch the vital breath, and die.”

The cultivation of the Medical and Physical Sciences as a system, though ever important to the life and happiness of men, has never yet met the reasonable demands of society. It is true, however, that at various times in the annals of medicine, such as Galen, Cullen, Cooper, Physic, Abernathy and others have by their scientific contributions adorned the profession of medicine. While Newton, Franklin, Humboldt and a host of others, have permeated the secret haunts and contributed largely to the elucidation of the Physical Sciences. Yet it is equally true, that the governing principles disclosed by the investigations of those men do not *seem* to sustain the mutual relations which the parts of a whole always sustain to each other. And why is this?

Are there laws in nature without harmony? Principles without affinity? Are the elements by which we are environed so at war as to demand a mediator? We think not. They only require an adequate medium of intercommunication, and cultivated mind, which will ultimately subdue the world, must become that medium; and here a broad, beautiful and inviting vista opens up to the view of the medical inquirer. On either side, arrayed in rich and varied perspective, are the Medical and Physical Sciences, with here and there, a disintegrated though monumental pillar, the stand point for a time of some worthy predecessor in the healing art; but the accumulated mass of material on either hand remains wholly unavailable except as it may constitute a portion of one or another of the collateral sciences.

Who, in this age, can boldly enter the temple of the physical, and trace there the liniments of the medical sciences? Who will reveal to us the intimate relation subsisting between the allied sciences? Or who, after observing the disclosures of nature, will attempt to show that the Trinity gave his similitude alone to man? and has now, elsewhere no counterpart in nature?

Chemistry, in some sense at least, is a spirit of truth alike common to the Medical and Physical Sciences, and takes hold of the principles and properties of both, and presents them to the mind of the medical philosopher. And it is thus that the scientific chemist, while elaborating philosophic truth for all classes of men, himself becomes one of the noblest ornaments of modern medicine.

Who, in fact, is even now esteemed the most honorable man in the medical profession? Not the man in costly array who devotes himself to elegant leisure. Nor yet the man who pants for blood, and cuts where'er there's money. But, 'tis he who in his pupilage fitly studied prophylactic and therapeutic medicine, and whose consecrated energies are yet actively engaged in discovering the means of meliorating the condition of suffering humanity, and in disclosing the hitherto hidden mysteries of medicine. 'Tis he who while he sits, or rides, or reclines upon his couch, contemplates the relation which through his complicated physical organization he sustains to the earth upon which he walks, to the air he breathes, to the water he drinks and the food he eats, as well as to light, darkness, heat, cold, electricity, and the ten thousand other environments, which address themselves to his sentient nature.

In short, it is the man whose mind is richly imbued with the honor, the dignity, the responsibility and delicacy of his mission. Whose comprehensive capacities have been illuminated by the teachings of nature, and whose morals are guided by a purer revelation. All honor to such a man!

W. P. JONES.

ART. XXIII.--CONTINUED FEVERS.

ATHENS, Jan. 10, 1853.

DR. W. P. JONES :

DEAR SIR : Your letter of the 24th ult., requesting a history of Continued Fevers, as occurring in my practice, was duly received; but the expectation expressed, that I have it in my power to impart important information in that respect, will indeed, I fear, be but very partially realized, mainly for the following reasons, to wit : First, not being very partial to my profession, and having more congenial pursuits at command, I at various times broke off from it, and would not practice excepting occasionally when urgent cases were pressed upon my attention, and moreover kept no regular record of professional occurrences. Secondly, Jefferson and adjacent counties where by far the greatest part of my desultory practice occurred, are remarkable for their salubrity ; the face of the country mountainous and hilly ; the soil dry, rocky, and gravelly ; the water (a great portion limestone,) excellent, and the streams, large and small, passing rapidly off over gravelly or rocky beds. Consequently we were seldom or never assailed by the epidemics incident to marshy and miasmatic countries. In a course of more than twenty years I do not believe that I met with more than a dozen cases of intermittent fever. The most frequent were the common remittent and continued (synocha) fevers, which seemed incidentally to be occasioned by frequent rains succeeded by a bright sun and sultry weather. In general these fevers required a free use of the lancet, the proper application of which, in conjunction with other appropriate appliances rarely failed in conducting them to a favorable termination. It may be added, that straggling cases of Typhus were occasionally met with. Some twenty years since I moved to McMinn county, about one hundred miles south west of my former residence. Here the face of the country is by no means so mountainous and broken. On the contrary there is in every direction considerable bodies of level land, upon the uncultivated part of which, the water in many places, after copious rains, remains until dissipated by evaporation and absorption. The water courses pursue their sluggish course over muddy bottoms, and during the winter and spring seasons innumerable wet weather springs and rivalets which disappear in summer are every where seen. With this dissimilarity in the local features of the two

sections under notice, there exists a corresponding difference in the characteristics of their febrile diseases. Intermittents are vastly more frequent, and in the remittent and continued fevers there is an unequivocal approximation to the character of those in more decidedly paludal and miasmatic regions.

In the fevers here, the force and excitement in the sanguineous system are not so exalted, the thirst and heat of the body less; nevertheless a greater tendency to congestion and inflammation in some of the viscera, especially in the mucous membrane of the intestines, and convalescence more tedious. In short, many of the cases might be perhaps with propriety termed typhoid; consequently more caution is requisite in the use of the lancet, which is rarely admissible, excepting at an early period of the attack. But according to my humble experience, when thus applied, it will in a large proportion of cases prove highly beneficial in obviating congestion and inflammation in vital organs, which seem to be the principal causes of a fatal termination. Indeed I have from time to time met with many instances of such like, which I could hardly doubt would have resulted differently, had an early and free abstraction of blood been premised. The rose colored spots and sudamina of which you speak, I do not remember ever to have noticed in any of my own cases, and one of my medical friends whom I have consulted, reported the same thing, and another as having met with only one or two examples of the kind. And here again I must be permitted to express the impression that if in the early stage of the complaint, bleeding and a strictly antiphlogistic remedial and dietetic course were pursued, the phenomena spoken of would not often appear.

Your letter came to hand just as I was folding up one in answer to a circular and request from Dr. Avent, of Murfreesboro, that I would furnish him with a history of my surgical operations. And now, sir, in conclusion, I doubt not you will pardon the imperfection of this hasty scrawl, when you are informed that I never before wrote so much at length on medical subjects as I have just done to Dr. Avent and yourself; and that the remarks made are solely the result of my limited experience in the premises. Please to accept the assurance of my sincere wishes for your welfare personally, and for the success of the enterprise in which you are engaged.

Respectfully yours,

WM. H. DEADERICK.

ART. XXIV.—A CASE OF ARTIFICIAL URETHRA AND PUNCTURE
OF THE BLADDER.—By JOHN D. WINSTON, M. D., of Nashville.

Sometime in the Spring of 1845, and while living at Columbia, Ky., I saw R. M. W., a youth aged about twenty years, the patient of my relation and partner, Dr. Caldwell, now of Louisville. He was suffering intensely from suppression of water, caused by stricture of the urethra, the result, as I understood from the doctor, of long continued and badly cured gonorrhœa. Finding the introduction of the catheter impracticable, he was soon relieved by means of the lancet, warm bath and nauseants. The recurrence of the paroxysms had been frequent and severe, for which almost every variety of treatment had been used, such as bougies, cauteries, constitutional remedies, &c. Also the suggestions of Profs. Gross and Dudley, under whose care he had occasionally been, had all been brought to bear on his case, without the least prospect of anything like permanent relief. Under these circumstances, Dr. C. proposed relief by a division of the strictures. Accordingly, in a few days, Dr. Harding and myself being present, he operated, dividing two strictures, as well as I recollect, near the bulb of the urethra, and attempted to introduce a catheter through which the urine should pass while the parts might heal. But this, alas ! he failed to accomplish ; and as the patient was now urinating without difficulty, nothing further was attempted. Truly an unenviable condition, far worse than before the operation.

The second day after, and just forty-eight hours from this operation, during which time Dr. C. had not left him, I was hastily summoned to the case, found no water had passed for thirty-six hours, the bladder distended to its fullest extent, and his suffering, almost intolerable. To puncture the bladder through the rectum, at which point it could easily be felt, or by the upper operation, would have afforded at best but momentary relief. In this emergency we proposed forcible catheterism, if possible. In the event of its failure the horizontal operation, as described by Brodie, a division of the parts as near in the direction of the natural passage as practicable, back and into the bladder.

At the request of Dr., C. I operated, by placing my left forefinger in the rectum, the other on the top of a spear pointed bistoury, dividing the parts back till the tense tympanitic bladder was felt, which

I entered with a bilateral sweep, dividing, as I supposed, the seminal vessels, which time has proven was done. The water discharged, a catheter was introduced from the end of the penis through the new opening into the bladder, and there retained forty days, the time required for the complete healing and continuity of the parts. After the operation I saw but little of the case ; leaving it almost exclusively in the care of Dr. C., by whose skill and unremitting attention he was soon recovered, has ever since been free of any thing like stricture, has married, is still living, and the father of several children.

I took no notes of this case at the time it occurred ; and although to my mind it presents some points of interest, should not now, or perhaps ever have published it, but for the fact of a casual conversation I had a few days since with a much esteemed and able practitioner of this city, in reference to a case then under his treatment ; the management of which involved a point he doubted the practicability of making, and as I conceive was fully settled in the cure of my patient. The case to which I allude was one of imperforate anus, in which he feared that if an operation was made so as to reach the bowel, it would remain an irritated and suppurating surface, unprotected by mucus membrane, and an involuntary flow of the fæces for want of a proper sphincter, would be the result.

I entertain no such doubts; nothing of the kind certainly ever occurred in the above case. For the newly formed portion of the urethra, although made through ordinary muscle, cellular tissue, &c., healed rapidly, and was when healed and has continued to be as well protected by mucus membrane as any other portion of the urethra ; otherwise it would, at some time, have exhibited some signs of irritation, which, so far as I am informed, has never been the case. Nor has incontinence of the urine ever occurred, proving conclusively, that although the bladder, in its highly distended state, with the neck thrown far upwards and backwards, must have been entered considerably below the neck, perhaps not less than from one to two inches, yet at that point a sphincter was formed, or something that answered the purpose as well. Even more. The divided vassa deferens, accommodated themselves to the new opening, performing their functions in common with every other part concerned, as harmoniously and as healthily as though nothing had occurred. Otherwise emasculation in effect would have been the result, and he could not have propagated his species as he has done.

ART. XXV.—CHOLERA INFANTUM.

READ BEFORE THE MEDICAL SOCIETY OF RUTHERFORD COUNTY, NOVEMBER 4, 1852,
BY WILLIAM T. BASKETTE, M. D., OF MURFREESBORO, TENNESSEE.

GENTLEMEN :

Having been appointed by the President of this Society, to present a paper on Cholera Infantum, at this meeting, I have, in my humble way, endeavored to comply with this request ; and offer you the following thoughts, which I hope will not prove entirely devoid of interest.

Cholera Infantum is thought by many to be a disease peculiar to the United States. Whether this is true or not, I have not the means of knowing ; but should suppose that the disease might prevail in other countries, whose climate does not materially differ from our own. It is a disease almost peculiar to our summer months, or, I would rather say, peculiar to warm weather. It sometimes commences as early as April or May, and continues through the warm season, subsiding as cool weather approaches ; hence, children, like rabbits, generally begin to grow fat on the approach of frost.

It is a disease of frightful mortality, and is mostly confined to children between the ages of six months and two years ; though it often seizes them much younger.

Children who are in the second summer of their existence are, however, much more obnoxious to it than at any other age. It is an annual visitor to our town and country, and the very many deaths produced by it, admonish us to acquaint ourselves with its nature, and to prepare to treat it in view of all the lights which science can possibly throw around it ; and should I succeed in directing the attention of the Society to its true importance, I shall have accomplished as much as I hope to do in this essay.

The books are replete with accurate descriptions of Cholera Infantum, and there is, perhaps, no disease of the South with whose phenomena physicians are better acquainted than this ; yet I suppose it will be expected of me to narrate at least some of the leading symptoms and modes of attack of this fell destroyer of infantile life.

This disease is by no means uniform in its modes of attack. Sometimes it begins with a mild diarrhœa, and continues in this form several days before vomiting begins ; but it more commonly commences

with violent vomiting and purging; at other times with a profuse diarrhœa, followed in a short time by copious vomiting.

The matters ejected are usually yellow, or greenish yellow, or nearly colorless; and the dejections assume various colors, such as green, yellow, brown or white, (chalky,) generally, though not always, profuse; sometimes consistent and painful, but most commonly watery and passed without pain, and inodorous; sometimes slimy, sour, and highly offensive.

These symptoms are soon followed by fever, which is rather of an irregular remittent character, but most commonly exacerbated towards evening.

There is great thirst, languor and prostration, frequent moaning and restlessness. The skin is pale, and frequently hot upon the head, breast and bowels, while the extremities are cool. The pulse is small and irritable in a general way, though sometimes full and soft.

The tongue is covered with a white or brownish white fur, and not unfrequently pointed and red. The abdomen is frequently swelled and painful on pressure.

As the disease advances the symptoms become more aggravated. Spasm seizes the bowels, and is speedily communicated to the whole system; and death may occur in a short time.

This disease is, however, generally a protracted one. The vomiting usually ceases in a few hours or days, and a diarrhœa ensues, which is frequently of a profuse, though sometimes mild, but often of an intractable character. The body becomes cool, and the skin assumes a leaden hue, and has a clammy feel; the countenance is shrunken and the eyes languid; the tongue smooth, or rough and brown, and the mouth covered with apthæ; the fauces dry, and the hand frequently thrust deep into the mouth; tympany of the bowels; great emaciation, œdema of the feet and hands; frequent painful and offensive discharges from the bowels; moaning, plaintive cries; deep coma, white vesicles on the skin; sometimes convulsions, when death closes the earthly career of the little sufferer.

This disease, when under the control of remedial agents, frequently gives way in a short time, and the child begins to return to health and cheerfulness; and may continue to improve for eight or ten days or longer, when by the smallest imprudence the disease returns with all of its former violence, to be again treated and improved, and again to return, perhaps, a half dozen times through the summer and fall, until it either terminates in death, or the patient slowly recovers his health.

I come now to speak of the causes of this disease. It has been contended by some that miasmatic exhalations are the principal predisposing causes of this disease; while others deny that they have any or but a slight agency in developing it. That this disease generally commences before our common miasmatic fevers appear, is abundantly evident. Every practitioner of medicine in this county, has seen it in every direction around him, before there was any thing like miasmatic fever in existence. But it does not occur until warm weather begins—may it not, therefore, depend upon miasmatic exhalation? Might not a less amount of miasmatic poison be required to develop this disease in infants, than to induce fever in adults?

It is evidently dependent upon a high thermometrical condition of the atmosphere for its existence; and is it not probable that this condition of the atmosphere never exists in malarious localities and filthy, crowded and ill ventilated houses, streets and lanes without generating noxious effluvia which might act deleteriously upon a susceptible infant?

There is an impressibility in infants of a very high, delicate and sensitive order, owing to the great vascularity of the skin; and the intimate relations between the healthy discharge of its functions and the abdominal viscera may be very easily conceived. The peculiar susceptibility of the system in infants, makes them very liable to take on diseases from very slight causes; and if a poison has already invaded the system and predisposed it to disease, no one could be at a loss to conceive how the least imprudence in diet, or error in dress, the irritation of teething, worms, &c., might induce an attack of Cholera Infantum.

I might mention the depressing effects of a highly heated and impure atmosphere acting upon the delicate skin of an infant, thereby disturbing its functions, and rendering the capillary vessels unequal to the task of carrying on the circulation with a vigorous and healthful force, driving in the blood upon the digestive mucous surfaces, and bringing about diarrhœa and vomiting as an almost necessary consequence; but as I have very little doubt that miasmatic exhalations are the depressing and baneful agents in developing the predisposition to this disease in infants, and in protracting their recovery in very many instances; and that it takes a less amount of the noxious vapor to poison the system of an infant, and disturb the healthful play of the whole economy than it does to develop fever in adults, I shall proceed to give a few reasons why I think Cholera Infantum is in some way dependent upon mephitic effluvia, for at least its predisposition.

In the first place, children who live in an atmosphere loaded with putrid effluvia are sure to be subjects of Cholera Infantum. Almost every author that I have read, mentions the frequency of the disease in thickly crowded and badly ventilated streets and houses; hence they always advise their patients to be moved from the unhealthy localities; and when they are removed, they generally improve in health.

Secondly, this disease generally occurs under circumstances, already specified, which favor the production of noxious exhalations.

Thirdly, it always occurs in warm weather and in warm climates.

Fourthly, the fever which attends it is nearly always remittent in its type; while the fevers in adults of the same localities and seasons, are generally remittent or intermittent.

Fifthly, it disappears on the approach of cold weather, simultaneously with remittent and intermittent fevers.

But, gentlemen, I am not tied to any theory or dogma. If any member of the Society can show five better reasons why Cholera Infantum does not depend upon mephitic exhalations, I am ready to subscribe to them until the light of science shall loom up to show still better reasons for adopting another and still different opinion. The great beacon light by which I hope ever to be guided in all of my actions and opinions is truth, for truth is science.

There are a variety of circumstances and agencies which may act as exciting causes to this disease, a part of which have been already mentioned. I, therefore, will not trespass upon the patience of the Society any longer on this head of my subject, but proceed to speak of the pathology of Cholera Infantum.

Of the pathology of this disease I can say but little from personal observation, never having had an opportunity of making a microscopic examination. I shall, therefore, be compelled to rely upon the observations of others for the morbid anatomy presented in Cholera Infantum. Condie says, that in those cases that die early in the disease the mucous coat of the stomach and bowels has an unusual paleness, and that there is more or less congestion of the liver. There is no doubt but inflammation of the gastro-intestinal mucous membrane is frequently present, more especially if the disease has run on for any length of time, and the red points and patches, and increased developments of the glandular follicles of the stomach and bowels, found on dissection, clearly demonstrate it.

The vessels of the different organs concerned in assimilation are frequently distended with blood, and in a congested condition. The

liver is represented as being almost universally enlarged and congested; and the gall bladder distended with bile of a dark, green, or pale color.

The mucous membrane of the stomach and bowels is injected, and frequently softened; so much so, that it can be easily scraped off with the finger nail.

The mucifarious glands of the stomach and large intestines can generally be seen with the naked eye, and they are sometimes ulcerated. The spleen is frequently congested. The attention of the profession is, however, particularly directed to the enlargement of the liver as intimately connected with the pathology of this disease by Dewees, Condie, Jackson and others; while Horner, Roberts and others locate the pathology more especially in the mucifarious follicles; and M. Billard has evidently demonstrated the fact, as shown by Dr. James Stewart in his diseases of children, page 218, that the "follicular apparatus of the intestines is in a state of active development, simultaneously with the appearance of the teeth; and that every part of the digestive system undergoes at this period a change in its functional action. In connection with this state of the part, the congested state of the liver, produced by the heat of the weather, particularly when aided by an impure state of the air, becomes the principal source of the disease, by preventing the return of blood from the intestines through its ordinary channel. The mucous follicles, already predisposed to disease by their natural development above mentioned, are excited to morbid action, by being thus crowded with an undue amount of fluids."

The brain, it is said, in very recent cases, does not generally present any evidences of morbid action, yet in cases which linger for a time, there is evidence of congestion of this organ; and we sometimes find an abundant effusion constituting hydrocephalus, and in many cases without evidences of inflammatory action.

In very protracted cases we find ulcerations, intussusceptions and contractions in various parts of the bowels; dark spots in the stomach and duodenum; enlargement, and softening of the liver, &c.

In regard to the diagnosis of the disease but little may be said. It is almost impossible for any one who has claims to medical knowledge, to mistake it for any other disease. I shall therefore proceed to make a few remarks upon its prognosis.

It is impossible for any physician, no matter how astute and experienced he may be, to foreshow the result of any given case, with absolute certainty, in its inception. Cholera Infantum is a disease of

uncertain duration. It frequently runs a very protracted course and wears out our little patients by piece-meal. Others whose general appearance is equally unfavorable, linger through the whole season in a very precarious and uncertain condition, and finally triumph over all their troubles, sometimes in spite of doctors, nurses and all.

But we may augur well for the patient, for the time being, if the alvine dejections become less frequent and more consistent, and assume a healthy color and smell; especially if conjoined with these symptoms, the temperature of the skin becomes more uniform, and the pulse resumes its regular beat. When, however, the disease is persistent, and little amenable to remedies, the prognosis ought to be guarded.

Children sometimes recover when least looked for, while others die when hope is entertained of a speedy and safe recovery.

When coma begins to display itself, or delirium supervenes, there is great fear, without a speedy relief to the brain, of a fatal termination.

A constant, persistent diarrhœa, which will not yield to remedies, is ominous of evil, because we may suspect some serious and irreparable lesion in the alimentary canal. To see a child thrust its fingers far back into its mouth, is thought by Dewees to be a symptom of fatal import. He regards the passing of a live worm in the latter stages of the disease, also ominous of a fatal result; so does he regard a crop of white vesicles over the neck, breast and bowels as equally protending a calamitous end; but Condie says this latter symptom is not always a fatal one; for he has seen many recover after the vesicles had made their appearance. I have seen many recover after this symptom had appeared.

In the treatment of this disease, as well is in all other diseases, we should never lose sight of the important fact, that each individual case must be treated according to the indications that may present.

No particular and certain routine of medication will suit the disease as a whole. Special realities will demand of us such remedial measures as will best counteract their tendencies. No one can treat Cholera Infantum on strictly scientific principles, who does not acquaint himself well with the phenomena which indicate the various shades of pathological action incident to it. The question should always recur to us what are the material points in the case, and what will best meet them.

In a town like Murfreesboro we cannot complain so much, as do

most of our medical brethren who reside in large cities, of confined and impure atmosphere; and therefore cannot urge with the same force the necessity of, and advantages arising from a change of air from town to country. Indeed, I am not certain, according to population, that this disease is more rife in Murfreesboro than any where else in Rutherford County.

The idea of a change of location with the view of benefiting our patients, laboring under this disease, in this county, is to me entirely problematical. Most of the citizens of our town and county, reside in airy and well ventilated houses, surrounded with all the comforts that life demands. They have servants and carriages at their command, and by means of these and other facilities, they can take or have their children taken into the open air every day, when the weather will permit, and give them all the benefit of air and exercise. The children of the wealthy with all of these advantages, are, however, not more exempt from, nor easier cured of Cholera Infantum than those of the poorer classes. Do not negro children suffer less than white ones? If this is true, very little will be gained by simply change of air, unless it is clear that the disease depends upon the location.

In large cities there might be something gained by change of place, as the means for noxious exhalations are more abundant than in country localities. If a change of location should be decided upon, it is important that it should be done before the little patient becomes so weak and exhausted by disease, that he cannot bear the fatigue of traveling. When the patient is worn down by disease to a mere breathing skeleton, it is then too late to obtain the benefits of travel. To move him from home under such circumstances, would be to bear him away to die.

If a removal be determined upon, a high, cool and healthy locality should be selected, where no noxious exhalations are likely to be engendered.

A Diarrhœa in children during the warm seasons should always be attended to early, as it might lead to Cholera Infantum; for this purpose a dose of magnesia and rhubarb, or spiced syrup of rhubarb, may be administered, and it will generally afford relief, especially if a warm bath and gentle frictions over the surface of the bowels, and mucilaginous drinks be resorted to at the same time. If these means fail, however, we will seldom be disappointed in the use of calomel, sugar of lead and dovers powders.

The formula which I use is the following :

R Calomel,	2	grs.
Sac. Sat.,	2	"
Dov. Powder,	2	"
Sac. Alba.,	10	"

divide into eight powders, and give one every two hours until the whole are taken.

This medicine will generally pass off in a few hours after the last dose is taken, to the entire relief of the patient. If it should not, a little castor oil or rhubarb and magnesia will be required.

But we are seldom called upon to prescribe as early in the disease as this—seldom, indeed, until vomiting and other evidences of gastric irritation are manifested. In these it will be necessary to commence with a mustard poultice put over the stomach and bowels, made so mild that it will not tingle the skin too suddenly, and be kept on until the skin is permanently reddened. A tea-spoon full of gum water may be allowed every now and then to allay irritation and quench thirst.

The stomach is sometimes so irritable that it will not retain any fluid substance whatever upon it; when this is the case, we should rely upon minute doses of calomel, or hydrarg. cum creta, combined with bicarb. soda or chalk, if there is any acidity, frequently administered until the stools indicate that the calomel has passed through the bowels, which should be aided by frequent injections of a solution of common salt, (a tea-spoon full to 4 oz. of water,) as it is an admirable means of quieting an irritable stomach at any time. When decided bilious stools appear, the vomiting almost universally subsides; and a few tea-spoon fulls of chalk julep will generally complete the cure. But if fever should show itself about this time, and if there should be pain, tenderness and tumidness of the bowels, a few leeches should be applied to them, which, followed by warm cataplasms, will afford great relief. Should leeches not be convenient, a warm cataplasm or hep poultice will be of much service over them. At the same time, if there is coldness of the extremities, and there generally is, friction should be sedulously employed upon them with warm brandy or whiskey, in which cayenne pepper or powdered mustard or both would be important ingredients; and it should be persevered in until they are completely warmed up. Indeed, if the capillary circulation seems very languid, the whole body may be rubbed until there is a glow of heat upon the surface.

If there be any evidences of cerebral irritation, such as delirium, photophobia, heat about the head, redness of the eyes, &c., a few

leeches should be applied to the temples, or a cup or two behind the ears, and warm stimulating embrocations to the extremities. A towel wrung out of cold water may be applied to the head at the same time. When there is sufficient subduction of the arterial excitement, and no abatement of the head symptoms, the whole head ought to be shaved and a large blister drawn over it.

Having controlled the vomiting, the next most important point that should claim our attention, is the establishment of healthy secretions throughout the whole system.

The skin should be frequently bathed, and gentle frictions resorted to, either with a soft brush or the naked hand, and flannel worn next to the skin, if thought necessary. The kidneys also should claim our attention, and if anything is wrong there, it should be righted; but our attention should be mainly directed to the chylopoetic viscera; and here we must be careful in our discriminations.

If the stools are of a light, chalky, muddy or dingy color, we naturally ask ourselves what occasions it? Why is there no bile in the stools? We have seen that the gall bladder is sometimes distended with a pale or white bile. May not this kind of bile be in the passages? If so, why does the liver secrete it? What condition of the circulating material obtains, from which the liver is compelled to secrete bile of this color? Or is the liver alone at fault, and the circulating material normal? If I dared to hazard an opinion, I should say that both were abnormal. What then are the remedies?

Calomel, in half grain doses every two hours until the stools indicate a better state of things—then every three or four hours until they approach a healthy condition, will generally improve, and frequently restore the patient. Perhaps a few doses of chalk julep, at intervals of four or six hours, may be required to complete the cure.

If the stools are thin, watery and frequent, it matters not of what color they may be, it is pretty good evidence of irritation of the mucous membrane of the alimentary canal and soothing and restraining means are required to overcome this condition. For this purpose we, perhaps, can use no better remedies than calomel, sugar of lead and opium.

R Calomel,	1 gr.
Sac. Sat.,	2 "
Dov. Powder,	2 "
Sac. Alba.,	10 "

divide into ten powders, and give one every hour until the purging is arrested. Gum water may also be allowed freely. Nothing will

generally be required to carry off the medicine. I generally interdict the use of any other laxative.

If the passages are offensive and slimy, and attended with a tenesmic effort, I regard irritation or inflammation, according to the degree of distress there may be present, in the rectum and colon. A dose of hydr. cum creta, followed by a tea-spoon full of castor oil, and a drop or two of laudanum, aided by anodyne enemata, and warm cataplasms to the bowels, will be excellent remedies for this state of things. After the oil operates, an emulsion spts. of turpentine, I regard as an admirable medicine, and I think will be found to answer the purpose in question finely.

R Mucilage Gum Arabic,	3i
Spts. Turpentine	24 gtts.
Tr. Opii,	8 to 12 gtts.
Sac. Alba.,	q. s.

A tea-spoon full every four or six hours, as occasion may require.

When the dejections are green, I have been in the habit of looking upon them as the result of acidity of the *prima viæ*, but I am not satisfied that this is always the case. Why do we always see a spinage green color to the stools in hydrocephalus? Is there always acidity of the *prima viæ* in this disease? Or does it depend upon a peculiar, and as yet unexplained condition of nervous action or inaction? Who has not seen a similar state of the stomach in adults, in whom there was evidences of great nervous depression? I presume there is no practitioner of this society, who has not seen copious, liquid, pea-green vomiting in his adult patients, who disclaimed that there was any acidity in the ejections. Does not this condition depend upon a faulty innervation? I am disposed to look at it in this light.

If we have reason to regard the discharges as the result of acidity of the *prima viæ*, we should use calomel and chalk combined, in small and frequently repeated doses, until we obviate this condition. Does the color depend upon vitiated hepatic secretion? the above remedies will answer equally as well to restore the liver to its normal action; but, if it depends upon faulty innervation, we must look beyond the stomach for its cause, and address our remedies to the organ at fault. But here a difficulty arises. We do not know in what the fault consists. If it be nervous depression, we should use nervous stimulants, and vice versa. Has any member of the society attempted to remedy this state of things by the use of nervous stimulants, or nervous sedatives?

After the foregoing treatment has been adopted, and many of the more violent symptoms have abated, which generally occur in a few days, there will still remain in a great many cases, evidences of disordered action, such as a want of appetite, occasional nausea, fretfulness, fever, diarrhœa of seemingly healthy dejections, as regards color, &c. This condition, I regard, depends upon unsubdued irritation of the gastro-intestinal mucous membrane, and may be remedied by mucilaginous drinks; an occasional dose of hydr. cum creta; small quantities of bicarb. soda and loaf sugar, dissolved in gum water. A tea-spoon full of the following mixture will be found very useful.

R Mucilage Gum Arabic, ʒij.
 Bicarb. Soda, ʒss.
 Spiced Syr. Rhub., ʒij.
 Sac. Alba., q. s.;

mix, and give a tea-spoon full every three or four hours. At this stage of the disease, and more especially if there is decided feverishness, opium and astringents should be interdicted, as likely to do more harm than good, by increasing irritation, and endangering inflammation of the brain; although by their use we might arrest the diarrhœa very speedily; yet, if no other evil consequences should occur, the diarrhœa would soon return, and our work would be to do over again.

The most annoying and dreaded effects of Cholera Infantum remain to be noticed. I allude to diarrhœa in its chronic form, which is so apt to be a sequel of this disease.

Who that has practiced medicine amongst us, even for a short period of time, has not been perplexed, and had his patience tested, by his want of success in arresting this everlasting recurring diarrhœa?

And who has not had the mortification to see the disease apparently arrested, and again return in a few days, by some imprudent act of the nurse, or other officious intermeddlers, and every renewed attack sink his patient into a more doleful condition, until he passed beyond the reach of medicine and the hope of recovery?

When the fever and irritation of the stomach have subsided, there is no remedy, perhaps, of more efficiency in controlling the bowels, than sugar of lead and dovers powders given in small doses.

R Sac. Sat., 3 grs.
 Dov. Powd's, 1 "
 Pulv. Cin'mon, 12 "
 Sac. Alba., 12 "

divide into 12 powders, and give one every one, two, or four hours, pro re nata, until the bowels are effectually controlled.

If these powders fail to afford the requisite relief, and they will seldom do that, if judicious discrimination is made, the oil of turpentine should be resorted to.

R Mucilage Gum Acacia, ʒij.
 Oil Turpentine, ʒi.
 Tr. Opil., 20 gtts.
 Sac. Alba., q. s.;

mix, and give a tea-spoon full of this mixture every three, four, or six hours until relief is afforded.

The ordinary vegetable astringents, such as kino, catechu, cranesbill, &c., are apt to produce tenesmus if they are used too early and improperly. They diminish the quantity, but not the frequency of the stools; and are never required unless there is decided want of tone and innervation in the alimentary canal, or where the diarrhœa is kept up from habit. Mild tonics may, however, be used much earlier than this class of astringents. Quinine is, perhaps, the best tonic we can use; and the following formula is very convenient:

R Sulp. Quinine, 6 grs.
 Elix. Vit., 6 gtts.
 Syr. Lemon, ʒiss.

Dose, a tea-spoon full three or four times a day.

When the diarrhœa is kept up by habit, or loss of tone in the digestive functions, tonics and astringents are both particularly required. I have often used the following mixture with unequivocal benefit:

R Chalk Mixt., ʒij.
 Sulp. Quinine, 6 grs.
 Tinc. Catechu, ʒij.

Dose, a tea-spoon full every three or four hours.

The feruginous tonics are also important remedies at this stage of the disease.

The antihectic myrrh mixture of Griffith, given in one and two tea-spoon full doses three or four times a day, is an excellent preparation of iron, and well suited for children. We should not omit at this stage of the disease, to have our patients exercised daily in the open air.

When the diarrhœa is persistent and the stools are offensive, and occasionally mixed with mucous and purulent matter, and emaciation goes on *pari passu*, we may very logically suspect ulceration in some part of the alimentary mucous membrane. When this state of things exists it will be clear to every one, that the indication is to heal the ulcer before the diarrhœa can be arrested. For this pur-

pose, the nitrate of silver is, perhaps, incomparably our best remedy, and the formula below I believe is one of the best we can adopt:

R Mucilage Gum Acacia,	ʒij.
Nitrate of Silver,	2 grs.
Tr. Opium,	24 gtts
Loaf Sugar,	q. s.

Dose, a tea-spoon full three or four times a day, until the bowels heal.

Stimulating liniments to the bowels will also be useful; likewise a warm bath of salt and water. I have also seen much apparent good from a warm bath of tan-ooze. A flannel roller should also be worn around the bowels. The temperature of the body should be kept equalized as much as possible by warm clothing.

I will close this paper, by calling the attention of the Society to one more point of interest. I allude to hydrocephaloid.

This condition resembles hydrocephalus in nearly all of its important phenomena; but it is the result of exhaustion and debility, consequent on extensive serous diarrhœa, or conjointly on vomiting and diarrhœa.

The little patient lies in a listless, comatose state, and moans and rolls his head upon his pillow; his skin is cool and flabby; pulse small and almost imperceptible, though not very much increased in frequency; frequently throws his hands with unsteady gyrations about his head; eyes dull and half closed, pupils dilated, extremities cool, &c.

These symptoms indicate the free use of stimulants, tonics and astringents. Chalk mixture, with catechu, wine whey, brandy toddy, carb. ammonia, warm bath, stimulating liniments, frictions on the spine, &c., should be resorted to; and if coma should show itself, blisters behind the ears will be required.

In the foregoing remarks, I have said but little of prophylactics, diet, convalescence, &c., and shall omit saying any thing upon these subjects, as I have already trespassed upon your patience; but respectfully refer you for more extended views upon these subjects to our standard authors.

ART. XXVI.—DIET, AS A REMEDIAL AGENT.

Before resuming the subject under consideration, it may be proper to premise, by way of apology for the rather desultory mode in which the subject was treated in the preceding number, that our object is not to write a "systematic treatise" on diet and its effects, but rather to present a few facts and suggestions, as matter for future and more mature reflection, by the readers of the Journal. By the term "diet," we mean to include every species of organizable matter, animal, vegetable and mineral, that can be so altered or modified by the digestive organs, as to become subject to the influence of the organizing force, and elaborated into the several organic compounds necessary to a healthy constitution of blood and tissual nutrition.

Is it not probable, that in an extraordinary emergency of the general system, as in the case referred to, when the vital forces are on the eve of annihilation from organic inanition, consequent upon the almost entire absence of the proteinaceous compounds of the blood, that there may be a temporary "suspension of the rule" ordinarily observed by the organs of primary digestion; in other words, that the nutritive ingesta, in a state of mere gastric solution, may be taken directly into the circulation through the passive tubes of the chyle vessels. It seems quite as reasonable, from what we *know* of the vicarious *capacities* of other organs less closely related, that the organizing power should be competent in such a case, to complete the process of chylification, as to suppose that the chyle vessels should be suddenly and powerfully supplied with functional vigor, in a disease, too, constantly operating to enfeeble the primary digestive organs.

In a state of perfect health, when the natural relation between primary assimilation and tissual metamorphosis is preserved, and the supply of nutritive matter regulated by the demands of the system, every atom of the chyle is elaborated into organic compounds: as fast as the kidneys and other depurating organs remove the products of secondary assimilation, the molecular regeneration of the tissues, from the newly made blastema, is going on, *pari passu*; and there is consequently no surplus of nutritive material in the circulation. This relation between primary and secondary assimilation, however, is the exception to the general rule: but provision has been made in the system for too much food. There is, as has been remarked, a varia-

ble amount of imperfectly elaborated chyle in the circulation of every individual in ordinary health, upon a full diet, which must be eliminated with the proper products of secondary assimilation by the kidneys, or deflected from the point of globulation to form fat, or under a lower grade of vitality, to engender morbid processes; and unless the quality of the alimentative matter, and the normal relation between the supply and demand, be properly regulated, morbid processes will begin to show themselves sooner or later, and when once established, it is no difficult matter for the system to divert its superfluities of nutrition into the same channel, and in the end develop serious malorganizations. Hence, the importance of a careful attention to the quantity and quality of the diet, in the treatment of the various forms of the pathoprotean lesion of nutrition, viz: Gout, Rheumatism, Scrofula, fatty degeneration, &c.

The human body is constantly undergoing changes, resulting mainly from the changing quality of the diet, and the influence of external circumstances constantly in force. It is a law of our physical organization, for the fulfillment of which the wisdom of the Creator has made bountiful provision, that the quality of the diet should be varied, according to the change of season, climate, and other circumstances; it is indeed, indispensable to the healthy action of the organs of organic and animal life that this should be as it is. A description of diet adapted to the wants of the body at one season of the year, is unfit to meet the demands of the economy at another. During the winter months, the system requires a chyle, rich in the proteinaceous substances, to nourish and invigorate the muscular tissue and produce animal heat. Albumen and carbon are burnt in the lungs to form higher organic compounds, and to preserve the proper temperature of the body. As the mild weather of spring approaches, there is consequently a decreasing necessity for these elements of nutrition, and the organic instincts suggest a description of alimentative matter, suited to the exigencies of the system, such as raw succulent vegetable matter, of low chemical organization, &c.

It is at this season of the year that the system is liable to derangements, from the peculiar chemical constitution of the blood; hence, bilious complaints, diarrhoeas, and catarrhs are prevalent: There is a surplus of the hydro-carbonaceous elements of the blood, not required by the system, which must be removed in some other mode than by combustion in the lungs, as a less amount of animal heat is necessary to preserve the proper temperature of the body. The liver, which has been comparatively tor-

pid during the preceding winter months, sustaining, as it does at such times, a relation of safety to the lungs, is now required to assume an increased functional activity, to remove the redundant materials from the blood; and where the organs are well balanced, and the circulation not overloaded, the general health need not be seriously disturbed by this new arrangement of the organs. It occasionally happens, however, especially when the cold of winter has been *suddenly* succeeded by the genial warmth of spring, that bilious derangements are severe, amounting not unfrequently to an endemic; the liver for the period of several consecutive months past, has been accustomed to perform a certain amount of labor, but is ready to rebel against too sudden an increase of its appropriate function; and having acquired a habit, is not prompt to adapt itself to the change of circumstances. If the liver should fail to act promptly in such cases, the burden is thrown upon the bowels, and diarrhœa is likely to supervene, and in this way the blood is purged of its redundancies; or in the event that neither the liver nor the bowels act freely, the system in its efforts to rid the circulation of the peccant albuminous material, throws the burden upon the mucous membrane of the air passages. The true *ratio medendi*, in either contingency, is to assist the spontaneous efforts of the system by the administration of an occasional saline cathartic, and the moderate use of a light vegetable diet, with acidulated drinks.

It is at this season of the year too, that the most violent and unmanageable cases of typhoid fever occur, more especially in miasmatic localities, complicated by pulmonary congestions and inflammation. As an organ is usually prone to diseased action in proportion to its functional activity, we might conclude, *a priori*, that at this season pulmonary congestion and inflammation would be more likely to complicate typhoid fever. The liver, whose province it is to relieve the lungs at this juncture, under the influence of the depressing effects of the poison which has been produced in the blood, or received from without, is incompetent to unload the blood, and the albumen must either be burnt in the lungs, or removed as is the case usually, by a species of exosmosis through the mucous membrane of the bowels, giving rise to characteristic diarrhœa; and as we had occasion to remark in another place, this symptom ought to be regarded as a favorable coincidence, in cases of pulmonary complications especially, an expression of the conservative power of the organic forces, rather than as a part or an essential element of the fever; and whilst the local congestion and inflammation are combatted with cups, leeches, or

general blood letting and blisters, it is important to stimulate the liver, to aid the bowels in excreting the hydro-carbonaceous elements of the blood, and to this end, according to our experience, mercurials are more advantageously employed in the treatment of typhoid fever in March and April, than in the Summer and Fall.

The term "appetite" as commonly used, has much more significance than is usually attributed to its meaning. A more philosophical definition would render it as the expression of organic instinct, suggestive not alone of the quality and quantity of nutritive substances needed, but indicative also, of the peculiar condition of the organs and the chemical properties of the blood in health as well as in disease ; and we are persuaded that a careful and minute inquiry into the peculiarities of this mode of organic instinct in each individual case, would not only aid us in selecting a curative diet, but at the same time, would throw much light upon the conditions of disordered action ; in other words, it would direct us to a more rational and successful mode of treatment, in a multitude of diseases.

We have stated that appetite is one mode of expression of the organic instincts : under ordinary circumstances—in a state of general health—when the several organs of the body sustain their just relations to each other, the expressions of the organic instincts, as a general rule, indicate the natural habitude and idiosyncrasy of the different organs ; and if duly appreciated, constitute, to the intelligent subject, a *law* by which he may safely regulate his habits of diet &c., to the promotion and preservation of health ; the *tout ensemble* of these several instincts, however, are blended so harmoniously in their expression, that we are prone to overlook its true import. But in a state of disease, where the natural relations of the several organs are disturbed to a greater or less degree, there results a corresponding diversity in the mode and degree of these expressions ; whilst the instinct of one organ or system may be relatively obscured, that of another may be exaggerated or intensified, and in proportion to this disturbance of relation and the perversion of the natural mode of expression, will be the obscurity in the phenomena of disease, and the difficulty and uncertainty of diagnosis and medication.

Here is an individual, for instance, of youth and strong physical organization ; each organ is in the vigorous discharge of its proper function, and being highly endowed with its peculiar instincts, unimpaired by previous disorder or unnatural habits, is competent to express its wants and affections in its appropriate mode. We will suppose that the individual is just entering upon a life of sensual indul-

gence, and abuse or excessive use of his organs, and has for the first time drunk freely of brandy, or other alcoholic drink. The stomach, accustomed heretofore to the stimulus of substantial food, perceives at once the extraordinary properties of the new stimulus, and its first impulse will be to eject it; if not thrown up, there is an immediate call for water or some other bland fluid, to dilute it, before it can be received into the circulation. Being chemically unfit for the normal nutrition of the tissues, and its presence in the blood disturbing the harmony and exaggerating the expression of the organic instincts, its removal from the body depends upon the intense action of the oxygen inspired. The heart is at once stimulated to increased force and frequency of action; an undue amount of blood, loaded with an increased proportion of its hydro-carbonaceous material, is forced into the lungs, while at the same time the respiratory movements are deepened and accelerated, to furnish the oxygen requisite to the combustion of this unwonted supply of fuel; in this way the brandy is removed from the body, in the form of carbonic acid and water. But in the mean time, every organ and tissue is participating in the general crethism; there is an artificial demand for an unusual quantity of the ordinary articles of food and drink; an amount of chyle, normal perhaps in quality, but out of all proportion to the actual necessities of the constitution, is elaborated and introduced into the blood-current. At first the organizing force is competent to arrange these chylous elements into organized compounds suited to the nutrition and molecular regeneration of the tissues; there is a gradual increase in the size and weight of the organs; but the development of nutrition cannot proceed beyond a certain point. The vascular system becomes distended to its utmost capacity, and the supply of nutritive material habitually exceeding the demand, there must of necessity be a vent, a way of escape for the redundant blood. At this stage, the cerebrospinal axis begins to show signs of disturbance, a paroxysm of trachelismus causes a transient stasis of blood in the brain, the individual is suddenly seized with blindness, staggers and perhaps falls. This paroxysm may result in death, or in some form of paralysis; but we will suppose, as is frequently the case, that the apoplectic seizure passes off without serious results, and the individual persists in the same excess of eating and drinking. At first, when the relation between the supply and demand were perfectly balanced, the demand of the system for food being the criterion of its expenditures, the office of the kidneys was to separate from the blood and excrete only the products of tissual metamorphosis, but in case of

hypernutrition and plethora, are made to sustain another relation to the organs, a relation of safety. Through the kidneys, then, a large amount of the redundant chyle-blood may be thrown off, conserving for a time the general condition of the system; or there may be occasional spontaneous discharges of blood from the nose or hemorrhoidal veins, or diarrhœa; and so long as the organs of the primary digestion and the organizing force are not seriously impaired, there must be an issue for the superfluities of nutrition, in some one or more of these modes. But the digestive organs must sooner or later begin to succumb to the incessant goading of an unnatural stimulus, and excessive cibation; the organizing power becomes enfeebled, and the foundation is laid for lesions of nutrition. The plethoric albuminous matters begin to show themselves in different local manifestations, according to the proclivity of the individual to one or another form of disease; each tissue being a centre of appropriate and discriminative nutrition, endowed with a special life of its own, is liable to special impairment, and in proportion to its hereditary strength or weakness will be degenerated by general defects of nutrition or assimilation; the food, which in a healthy system, regulating its receipts by its expenditures, should proceed to the nourishment of the various organs and tissues, is diverted to develop the adipose tissue; the individual "fattens up," and whilst the deposit of fat is subcutaneous, there may be, for a considerable period, comparative comfort and exemption from immediate danger.

But the history of the drunkard's body, is a series of changes, constantly tending to atrophy: as the organs of primary assimilation become more and more impaired, there is a tendency to the formation of a class of products of low chemical organization, which show themselves in the urine, in the form of sugar and the urates; that which was originally an expression of the conservative powers of the system, the excretion by the kidneys of the redundant chyle-blood, becomes from errors of nutrition, a habit of disease. At this stage, too, the effect of atrophy begins to show itself in fatty degenerations of the liver especially, and of the heart, and an atheromatus condition of the vessels of the lungs and brain, and the patient may suddenly turn pale and die from giving way of the walls of the heart, or he may be struck down with apoplexy, from rupture of a vessel in the brain; or if life be farther prolonged in despite of the elements of death, working in every member, the organic instincts become so degraded and *stultified* from extreme lesion of nutrition, their proper relations so distorted by lesions of innervation, and the

vital affinities so feeble, that the body, as it were, crumbles into dust, before the vital spark is extinct, and the patient dies, a *bundle of pathological enigmas*, defying the most astute powers of diagnosis. Thus in proportion as the organs of primary assimilation and the organizing power are weakened by disease induced by errors of nutrition, the tissues tend to decay and return to their primitive forms. Now all these pathological changes and conditions of the body, result from lesions of general and local nutrition, arising mainly from imperfect or defective organic constitution of the blood, which has been depraved by the introduction of matter, into the circulation, in opposition to the natural organic instincts, and unsuited both in quality and quantity to the wants of the system ; and it is in this direction that we should prosecute our investigations for a rational explanation of disease, and a guide in the selection of medical and dietetic agents for its treatment.

JNO. W. KING.

ART. XXVII.—CATALEPSY.

Several years ago, while in one of our Western States, I accepted a courteous invitation from Dr. W., to visit with him an interesting young lady, whom he represented to be in a cataleptic condition.

It was probably 11 o'clock, A. M., when we entered the room of the patient, who was in bed—her eyes, and seemingly her mind, steadily fixed upon some object on the ceiling—her pulse exceedingly slow, respiration perhaps twelve to the minute. This being her condition, of course our entrance to her room, and nearer approach to her bed, had been unobserved by other than the family and friends ; and here, in company with Dr. A., (consulting physician,) we carefully observed her then condition.

During the intervals of respiration, Dr. W., (who, by the way, was not a believer in animal magnetism,) placed his hand over hers, and by slowly raising his, hers followed—this he did frequently, and under similar circumstances, with like results. I exerted more control over her than did Dr. W. ; Dr. A., however, exerted greatly more influence than either of us. By placing his hand at the distance of an inch from her forehead, he could bring her almost to the sitting posture ; she, however, fell like lead, the very moment she commenced breathing. Without touching at all, but by merely bringing my

index finger in close proximity to either of hers, they were flexed and extended at will. And by placing her hands in any position which caprice or fancy might suggest, there they would remain until the next inspiration.

This condition was uniformly succeeded by the most frightful convulsions, which lasted, usually, from ten to fifteen minutes; after which, she gradually resumed a state of tranquility and consciousness. Notwithstanding the treatment which the most skilful physicians were competent to adopt, these paroxysms were of almost daily recurrence for several months; when she slowly though entirely recovered.

This young lady, I ascertained, was nearly related, (perhaps cousin,) to Miss Slaughter, of Virginia, whose case was so interestingly reported about fifteen years ago, in the *Southern Literary Messenger*, by Dr. Marcus C. Buck.

REMARKS.—Catalepsy was for a long while regarded by Cullen, and other distinguished nosologists, as a disease of doubtful existence, and if existent at all, to be considered as a species of apoplexy. While others have viewed it simply in the light of ordinary convulsions, others again have thought it a peculiarly indefinable manifestation, probably referable to comatose debility. While still another, (if not more discriminating class of men,) have recognized it as but one of the multiform phases of hysteria.

Dr. North, in the year 1828, described a case which occurred in London, in the person of a young lady. Her predisposition was traceable to an unfortunate love scrape.

There can be no question as to the fact, that both sexes have been affected with a disease so nearly resembling catalepsy, as to have been by many physicians so regarded. When, however, we recur to the many points of resemblance subsisting between this disease and epilepsy, apoplexy, &c., it would not be surprising if some have mistaken the one for the other; or if, indeed, there should have been accompanying indications of both forms of disease presented in the same patient.

I am not aware that organic lesion has, in a single instance, been regarded as the proximate cause of catalepsy, though extensive functional derangement is peculiarly pathognomonic.

Remedial.—Give, if possible, a different, cheerful and hopeful direction to the operations of the mind; pustulate with croton oil along the course of the spine, and by well directed constitutional treatment, re-establish healthy secretions and you cure your patient.

W. P. JONES.

ART. XXVIII.—DENTITION, CONVULSIONS, ETC.

In the Dental department of the January number of this Journal, I observed an article taken from the *American Journal of Dental Science*, on "the cure of convulsions by lancing the gums." My attention was particularly directed to this case from the fact, that only the day before, in company with another physician of the city, I was called to see a child similarly afflicted. The ordinary treatment, such as anti-spasmodics, emetics, friction, warm bathing, &c., had been used, but convulsion still succeeded convulsion. Upon examination, we ascertained that the gums were somewhat swollen, and regarding their condition as the probable source of irritation, we forthwith resorted to deep and extensive incision. Blood flowed freely, and the child was not only instantly relieved, but so far as I know, permanently.

All observation among medical men proves most conclusively, that there is no period of human existence more immediately surrounded by circumstances militating against health, or constantly threatening death, than that of infancy; and especially the period of dentition. And yet, these same medical men have never given to infants the patient philosophical consideration which their diseases seem to require. Indeed, we know of no department of practical medicine in which physicians generally are so culpably ignorant.

If a child, while teething, has diarrhoea, why the doctor looks wise and prescribes chalk-julep, blue powder, or cinnamon tea, probably each; and if the patient dies, it is quite easy for him to assume a sanctimonious air and exclaim, "Bless the dear little creature, it is taken from the evil to come." But what knows he of the pathological condition of his patient, or what has he done to *relieve disease*? The fact is, we have long and obstinately shut ourselves out from an amount and character of information derivable only, (under existing circumstances,) from educated members of the dental profession, which, if known to medical men, might have proven of incalculable benefit.

Every body knows that there are now many thoroughly educated medical men, devoting themselves to Dental Surgery as a *specialty*; some of whom constitute the most useful members of our medical associations. But out of these societies, what do the mass of physicians know of their special investigations, or periodical literature?

We are convinced that the more intelligent members of the medical profession will see, with pleasure, that this department of the remedial and healing art is beginning to receive the consideration which its importance so much demands, and that in our division of labor, it is here entrusted to one whose energy, talents, and professional learning, will enable him to bring rich and abundant stores of useful, practical information from the Dental, and present them to the Medical profession.

W. P. JONES.

XXIX.—CADAVORIC AUTOPSY OF DANIEL WEBSTER.

From the Louisville Journal's synopsis of Dr. Jeffries' paper on the post mortem examination of Daniel Webster, we make the following extract :

For the past eighteen or twenty years Mr. Webster had been the subject of an obstinate diarrhœa, and for the past few years he was compelled to take opiates freely in order to keep it checked. For about the same space of time Mr. Webster had been annually visited with a catarrhal affection, commencing about the 6th or 10th of August, and continuing until the first of October. The only time of his escape from this annual visitation was in the year of his visit to England. During the past few years he adopted energetic treatment, with a view of preventing the accession of the disease. In 1851 he was attacked with gout. This was so severe as to require treatment, and, under the judicious management of Dr. Jeffries, Mr. Webster recovered to such an extent as to enable him to declare that he was perfectly well. He went to Washington in the month of September, and resumed his official labors, but they soon began to tell in their effects upon what was evidently a diseased constitution. He was under medical treatment through the winter. In the latter part of April he repaired once more to Marshfield, in the hope of reuniting his shattered health.

In May, Mr. Webster was thrown from his wagon, and fell with violence upon his hands and head. He was insensible for a short time, but soon recovered consciousness. The marks of a violent shock were so great upon the forearms, even on the fourteenth day after the fall, that it is impossible to shut out the suspicion that the head, which struck the ground violently, probably sustained serious injury. Yet, on the eighteenth day after the accident, Mr. Webster addressed the citizens of Boston, in Faneuil Hall, in a speech that was greatly admired. In July, Mr. Webster received the honors of a public reception in Boston, and his speech on the Common betrayed no want of that intellectual vigor and power that had long

characterised the orator. He was ill at the time, and had to undergo medical treatment to enable him to carry himself safely through the efforts incident to the occasion. The object of these details will soon appear.

In September, Mr. Webster took cold in Baltimore, and complained for the first time of the symptoms connected with his last illness. Upon his arrival at Marshfield, a medical examination showed indubitable signs that Mr. Webster was seriously ill. This evidence accumulated at such a fearful rate, and with such a degree in the gravity of the symptoms, that the medical attendants could have had but little hope of the recovery of their patient from the first. The venerable patriarch of the medical profession of New England, Dr. James Jackson, who stands as high in his own profession as Mr. Webster did in his, was with the patient on the last night of his mortal illness, and all that medical science and skill, all that devoted affection could do to protract the life of the sufferer, were fully rendered. They ceased only when the demand for their offices ceased, which was at thirty-five minutes past two o'clock, on the morning of October the 24th.

The post mortem examination was made by Dr. J. B. S. Jackson, and no man in this or any other country commands a higher degree of professional respect and confidence. His opinions are entitled to the highest regard.

The examination was commenced thirty-two hours after death. It is somewhat remarkable that the intestinal tube showed no sign of ulceration as an explanation of the long continued diarrhœa, nor any ecchymosis explanatory of the hemorrhages.

The liver was far from being in a healthy state.

The membranes of the brain were remarkably diseased. In the cavity of what is called the arachnoid membrane was a layer of fibrine covering almost entirely the convex portions of both hemispheres of the brain. This layer was one-fourth of an inch thick in some parts, and had made strong adhesions to the membrane above it. The serous effusion into the membranes was quite large. There was no effused blood nor cysts in or about the false membrane. The brain itself, was healthy. The layer of fibrine was organized, having blood vessels in it visible to the naked eye.

The case of Mr. Webster is regarded by the gentlemen concerned in the autopsy as unique. The lesion, of which the membranes of his brain presented an example, has been often noticed, but Mr. Webster's is perhaps the only example in which its existence betrayed no sign in the impairment of the powers of the nervous system. We are aware that statements have been made to show that this impairment was notorious, but their falsity is manifest in the fact that his medical attendants, with the most rigid scrutiny of the whole case for more than a month, had so little suspicion of any disease of the brain, that the head would not have been opened, except for the purpose of measuring its capacity. This testimony must be regarded as conclusive, and the fact proved by it is certainly a remarkable one.

It would have looked impossible, until Mr. Webster's case proved differently, for such extensive disease of the membranes of the brain to exist, not only without exciting suspicion of impaired mental power, but without being so palpable as to arrest the observation of the most uninterested observer.

There is some little dubiety as to whether the diseased condition of the membranes of the brain was the result of the fall from the wagon in May, or from the disorganised state of the blood, which was dependent upon the diseased state of the liver. To our mind, the question is of easy solution. The disorganized blood, dependent upon the condition of the liver, presented itself every where else in Mr. Webster's body as a disorganised fluid, but the layer in the brain was organised quite perfectly, and to our mind this goes far to establish the remarkable fact that Mr. Webster retained the powers of his mind from the 6th of May, when the fall from the wagon caused the injury of the brain, to the 24 of October, when he ceased to live. The physicians engaged in the autopsy evidently look to that injury as the origin of the disease of the membranes.

Dr. J. Wyman gives the following as the measurements of the cranial cavity :

Longitudinal diameter.....	7 $\frac{7}{8}$	inches.
Transverse.....	5 $\frac{3}{4}$	"
Vertical.....	5 $\frac{1}{2}$	"
Breadth of occipital fossa.....	4 $\frac{3}{4}$	"
Breadth of frontal fossa.....	5	"

The circumference of the head was $23\frac{3}{4}$ inches, and the distance from the meatus of one ear to that of the other, over the top of the head, was 15 inches. The capacity of the cranium, determined according to the method of the late Professor S. G. Morton, was 122 cubic inches.

The weight was as follows, in Troy weight :

Brain.....	4 pounds, 16 pennyweights.
Cerebrum.....	3 lbs, 6 oz., 6 do

The measurements given above are almost without exception of unusual proportions. According to Dr. Morton, the average diameters of Europeans and Anglo-Americans are as follows: Longitudinal $6\frac{1}{2}$, transverse $5\frac{1}{2}$, vertical 5.

The cranial capacity of Mr. Webster is the largest that has been recorded. Of 623 crania measured by Dr. Morton, including Caucasians, Mongolians, Malays, Americans and Negroes, only four instances occur in which the capacity exceeded one hundred cubic inches; of these, the largest were one English skull, measuring 105, and one German 114 cubic inches, the latter being 8 cubic inches less than Webster's. According to Dr. Morton, and no higher authority has lived, the average capacity of the Teutonic family (including English, Germans, and Anglo-Americans) is 92 inches, and Mr. Webster's cranial capacity was consequently, 30 cubic inches larger than the average of the great Teutonic family.

The two superficial measurements of the head were very nearly those of Cuvier, the circumference of whose head was 22 inches, 4 lines, (French,) and the measurement from ear to ear over the top was 15 inches. The circumference of Napoleon's head is reported to have been 23 inches.

The weight of Mr. Webster's brain deviated much less from the average weight, than the measurements. The amount of serum and fibrine in the membranes and cavities, which undoubtedly encroached upon the space once occupied by cerebral substance, may account for the diminished weight. According to a method of approximation devised by Professor Treadwell, of Cambridge, we find that Mr. Webster's brain, in weight, is among those regarded as of remarkable size. The following comparison is of interest:

Cuvier's	brain weighed.....	64 $\frac{1}{3}$	ozs.
Webster's	" "	63 $\frac{3}{4}$	"
Abercrombie's	" "	63	"
Spurzheim's	" "	55 1-16	"
Dupuytren's	" "	40 11-16	"

These are matters of great interest, but we beg leave to admonish our readers against an error into which some of our cotemporaries have fallen. In a limited field of physiological vision, relative weights of the brain and measurements of crania, may lead to highly erroneous conclusions. A notable instance occurred a few years since in no less distinguished a personage than Tiedemann, the celebrated German anatomist and physiologist. That distinguished physiologist compared the crania of Negroes and Europeans, and undertook to show, from the near approximation in diameters and weights, that there was of necessity a near approximation in intellectual endowments, in Negroes and Europeans. Now in comparing heads that approximate in measurements, we must be careful not to confound things that should be kept separate. A mere animal or brutish man may have a brain equalling Henry Clay's in weight, or he may have cranial diameters exceeding in some parts those of Webster's, and what do these facts teach? Simply this manifest truth, that the anterior and upper portions of the brain have offices that differ widely from those of the posterior and lower part. The intellectual powers reside in the anterior lobe of the brain, and there exclusively. An intellectual giant must have a large space for that portion of the brain, but he may have very small space in the lower, or animal part of the head. The negro race have a large development of the latter kind, and an inferior one in the perceptive and intellectual regions. If, then, the plan of Tiedemann is resorted to, that of measuring the relative capacity of African and European crania by the quantity of shot they hold, the source of error is evident. The true secret of intellectual power is not in the absolute amount of the contents of the cranial cavity, but in the proper distribution of those contents. If an undue proportion of those contents are given to the base of the skull, animal propensities will predominate, but if a large share of the brain is in the anterior lobe and upper portion of the brain, intellec-

tual power proportioned to the predominance is a certain result. With these hints, which might be greatly elaborated, our readers are prepared to feel the force of many of the statements of comparative measures and weights contained not only in this synopsis of the post mortem examination of Mr. Webster, but in various publications.

There are several errors in the Journal's summary, which, however, the scientific reader will readily detect and excuse. Altogether, the report will be found peculiarly interesting, and therefore worthy attentive perusal.

ART. XXX.—BITE OF THE RATTLESNAKE.

MESSRS. EDITORS:

I believe as yet no distinguished authority has elevated the claims of Alcohol to the character of specific in this terrible malady; a character to which I think it justly entitled, as the following case will show :

I was summoned in haste on the evening of the 20th September, 1852, to see Miss R——, a young lady aged 17, living five miles in the country, who, (I was informed by the messenger,) while taking a stroll in company with her mother, was bitten by a Rattlesnake. I arrived at half past seven o'clock, two hours and a half after the accident. I found my patient almost moribund, pulse wavy and scarcely perceptible at the wrist, surface cold and bathed in perspiration, face swollen with a besotted expression, mind wandering, pupils dilated, could not see, declaring that it was very dark, although candles were burning in the room, asked frequently if it was not raining hard, although the night was calm and clear. Upon examination I found that the bite had been inflicted on the instep of the left foot: two little punctures were very perceptible, around which there was a greenish areola, with some puffiness.

Having heard of the marvelous efficacy of "spirits" in the relief of similar cases, I at once determined to give the remedy a full and fair trial. Reason and analogy sustained it. The nervous system was overwhelmed by a swift and deadly sedative poison, it must be supported by an equally powerful *diffusible* stimulant; accordingly I gave half a glass of whiskey, which was swallowed with avidity. Meanwhile the wound was freely scarified and cupped, and the extremities placed in a hot saline bath; twenty grains of carb. ammonia was then given.

which was immediately thrown up, together with the contents of the stomach, colored a bright grass green. A common sized glass full of whiskey was now given, the patient draining with eagerness the last drops, and begging with the energy of instinct for more; thus a glass of whiskey and twenty grs. of carb. ammonia were given alternately every half hour, until three pints of the former and eighty grs. of the latter were taken; and what is remarkable, not the slightest intoxication ensued, on the contrary, the urgent and alarming symptoms gradually gave way, warmth was restored to the surface, the pulse returned to the wrist, the mind was called back from its wanderings, and she fell into a quiet sleep, from which she awoke at five o'clock, A. M., complaining of intense pain in the foot, shooting up the inside of the leg to the knee: ordered, morphia one-fourth gr., fomentations of laudanum and camphor, followed by poultice of linum lini, with the effect of entire relief of pain. The following day castor oil was given to move the bowels; from that hour she suffered no further inconvenience from the bite.

The instinctive avidity and impunity with which this delicately nurtured young lady took so large a quantity of spirits, sufficient under ordinary circumstances to have killed a regular *habitué*, would excite astonishment, if we did not reflect that it was antagonized by the depressing effect of the poison on the nervous system.

But the most interesting feature in this case remains to be stated: Miss R——, at the time she was bitten, was the subject of well marked whooping-cough, which was then epidemic in the neighborhood; she had had the disease about three weeks, consequently it was at its acme, but on recovering from the effects of the poison, to her great surprise and gratification, her cough had disappeared also, nor did it return: being essentially a spasmodic disease, it was swept away by the powerful impression made upon the nervous system.

This interesting and novel fact, it seems to me, furnishes some hints in the treatment of this hitherto intractable malady—whooping-cough, some remarks upon which I reserve for a future communication.

Yours truly,

THOMAS A. ATCHISON.

DEPARTMENT OF CHEMISTRY AND PHARMACY.

ART. XXXI.—PHYSICAL TOPOGRAPHY IN ITS RELATION TO MEDICINE.

NASHVILLE CEMETERY.

Such is intended to be the subject of a series of articles, the first of which was to have appeared in this number of the Journal, but circumstances beyond our control retarded the investigations we were making, and we are necessarily and reluctantly compelled to defer the matter till the May number. In the elucidation of this subject, it was our intention to have taken Nashville and its vicinity as a starting point, and drawing our conclusion from its prevalent diseases, to endeavor to show that there is an influence exerted upon its health by its Physical Topography—its limestone formations and limestone water—its hills and its valleys. Whence shall we come to a knowledge of its prevalent diseases? They are afforded in the records of the Nashville Cemetery. To the kindness of the Mayor of the city we are indebted for free access to these records, and the facts deduced from them have both surprised and interested us.

Previous to the year 1822, when the "Nashville Burial Ground" was opened, interments from the town were made at McNairy's and Whitsetts' church, on Mill Creek. In 1822, the citizens feeling the necessity of setting apart, to the memory of their dead, suitable grounds, after much examination purchased by subscription a part of the grounds at present embraced in Nashville Cemetery. This spot was originally but a few acres, in the centre of the present capacious grounds—the spot where now repose the remains of many of our noble sires. Additions have been made to these few acres as the space has been filled up. It has now reached its utmost limits, and the day is not far distant when its gates will have to be closed and it remain the

silent city of the dead. For thirty years one after another has found here a resting place, so that now not less than 14,000 names are registered as sleepers in this consecrated spot. Visit its grounds, and as you walk along its numerous avenues you may read the unpublished biographies of those whose names are identified with the origin and with the prosperity of the City of Rocks. Not a sleeper there but has its record engraven in the memory of some one whose pulse is yet throbbing, as well as upon the "cold sepulchral stone."

Side by side here lie the hero general and the brave soldier who contended with him in the pioneer struggles—the ermined judge as well as the criminal who anxiously awaited his decision—the eloquent divine as well as the patient hearer whom he reminded of the transitory nature of terrestrial joys and terrestrial possessions—the mother and the babe that died upon her bosom—the master and the servant—the rich and the poor. Read their epitaphs, and hearts have bled in consigning them there.

A few facts we will state, as we have begun this article. From 1822 to 1853 there have been over 14,000 interments. From 1822 to July 1823 no record is made of the diseases of the interred.

In 1822 there were 69 interments, of which there were 27 white males, 10 white females, 14 white children, 7 adult negroes and 11 negro children. The greatest mortality was in September and October—25 children to 44 adults.

In 1823 there were 74 interments, of which 22 were white males, 5 white females, 23 white children, 5 black males, 5 black females and 14 black children, 37 children to 37 adults. The greatest mortality was in August and November.

In 1824—102 interments, of which 19 were white males, 5 white females, 35 white children, 5 black males, 11 black females and 27 black children—62 children to 40 adults. The greatest mortality in July and August, and in July 19 out of the 24 were children.

In 1825 there were 71 interments, 18 being white males, 12 white females, 13 white children, 6 black males, 7 black females, 15 black children—28 children to 43 adults. The greatest mortality was in January, August and November.

In 1826 there were 105 interments, 17 white males, 10 white females, 28 white children, 11 black males, 12 black females, 27 black children—55 children to 50 adults. The greatest mortality being in September and October, and out of the 24 burials in September, 17 were children and 9 out of 15 in October were children.

In 1827—129 interments, 24 being white males, 9 white females,

37 white children, 11 black males, 13 black females and 35 black children—72 children to 57 adults. The greatest mortality being in April and September.

Up to this time no record was made of the diseases of the interred. There are, however, some interesting facts deducible from these statistics, imperfect as they are.

In the six years between 1822 and 1828, there were 550 interments—271 being adults and 279 children under 10 years of age; more than one-half.

Of the 271 adults in that period, 178 were white and 93 black.

Of the 178 white adults, 127 were males and 51 females—of the 93 black adults, 42 were males and 51 females. Thus far the records show a decided mortality against the children in the city—and of the adults, the white female and the black male present less mortality than the white male and black female—in the proportion of 1 to 2. Why is this? We will continue this subject in our next. E. O. CUREY.

ART. XXXII.—NATIONAL PHARMACEUTICAL CONVENTION.

We have been favored with a copy of the proceedings of this Convention, held at Philadelphia in October last, and we cannot subserve the interests of Pharmacy better than to present our readers with a condensed statement of what was said and done on that occasion. Our medical brethren may here be assured that Pharmacutists are disposed to keep pace with the progress of the age, and to elevate their branch of that profession whose aim and object is the welfare of the human family, to its proper position as a science.

This Convention was held in accordance with resolutions adopted at a previous meeting, which had convened in New York, in 1851.

Mr. Coggeshall, of New York, was appointed President *pro tem*. The committee appointed reported delegates from the Colleges of Pharmacy located in Massachusetts, City of New York, Cincinnati, Philadelphia, and Maryland, and from the Connecticut and Richmond Pharmaceutical Societies. Other delegates were present from sections where no college or society was organized: they were also admitted to seats. The following officers were elected for the ensuing year:

DANIEL B. SMITH, of Philadelphia, *President*.

GEORGE W. ANDREWS, of Baltimore, }
 SAMUEL M. COLCORD, of Boston, } *Vice Presidents*.
 C. AUGUSTUS SMITH, of Cincinnati, }

GEORGE D. COGGESHALL, of New York, *Recording Secretary*.

WM. PROCTER, JR., of Philadelphia, *Corresponding Secretary*.

The Committee appointed to collect such information as may be deemed valuable, reported in full, from which we gather the following suggestions :

1. The organization of a *National Association*, in order to secure united action among the Pharmacutists, and whose members would be bound by a constitution and a code of ethics applicable to the present condition of the profession.

2. *Pharmaceutical Education* was one of the primary objects of the Convention.

3. The *Apprenticeship System*.

4. The course pursued by *quacks*, in bringing their *secret remedies* into notice, is fraught with ill consequences both to consumer and apothecary ; and the entire subject of *secret medicines* as applied to Pharmacy, received the consideration of the Convention.

5. The *Inspection of Drugs*, as regards the *actual* working of the law. [The present law reaches only the *Importer*. It does not reach *the manufacturer at home*. As a general rule, therefore, imported chemicals and medicines are purer and more reliable than those of American manufacture. Is not this the reason why such articles generally bear a higher price than those of home manufacture ? As the law now exists, it is *protective*. In what respect ? It protects adulteration at home. We may hear one say, inspect closely what comes from abroad—we are adequate to make our own adulterations. And it is done—done in the absence of law, and in defiance of morality and religion. Custom house orders, therefore, are powerless beyond their pale. Our state legislatures have a work to perform, upon which, so far as we are informed, not one has yet entered. Drug adulterators and medicine adulterators here in Tennessee, have to be reached as well as in New York, and they as well as those outside the custom house.]

6. The committee recommended the general adoption of the *National Pharmacopœia* as a guide in the preparation of officinal medicines.

7. The *indiscriminate sale of poisons* was pointed out as a serious evil.

8. The evil necessarily arising from the amalgamation of pharmacy with the practice of medicine, was deprecated.

9. To increase the interest of the annual meetings, original contributions were solicited.

A business committee was appointed to draft a constitution and a code of ethics, which, after due deliberation, were adopted. We have room only for part of the constitution, the remainder, relating to officers and their duties, being similar to those generally passed.

CONSTITUTION OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

Whereas, The advancement of pharmaceutical knowledge and the elevation of the professional character of apothecaries and druggists throughout the United States, are objects that are dear to us in common with all well disposed pharmacutists ; and *whereas*, a large portion of those in whose hands the practice of pharmacy now exists, are not properly qualified for the responsible offices it involves, chiefly by reason of the many difficulties that impede the acquirement of a correct knowledge of their business :

Therefore, We, the members of a Convention now met at Philadelphia, composed of apothecaries and druggists from different sections of the Union, and from all the Colleges and Societies therein existing, with the object of deliberating on the condition of our profession, do hereby *resolve* and constitute ourselves into a permanent association, to meet annually at such times and places as may hereafter be determined, for more effectually accomplishing the objects for which we are now assembled, and do now adopt the following

CONSTITUTION.

SECTION I.

This association shall be called "*The American Pharmaceutical Association.*"

SECTION II. *Of the Members.*

ARTICLE I. All pharmacutists and druggists who shall have attained the age of twenty-one years, whose character, morally and professionally, is fair, and who, after duly considering the obligations of the Constitution and Code of Ethics of this Association, are willing to subscribe to them, shall be eligible to membership.

ARTICLE II. The members shall consist of delegates from regularly constituted Colleges of Pharmacy, and Pharmaceutical Societies, who shall present properly authorized credentials, and of other reputable Pharmacutists feeling an interest in the objects of the Association, who may not be so delegated, the latter being required to present a certificate signed by a majority of the delegates from the places whence they come. If no such delegates are present at the Association, they may, on obtaining the certificates of any three

members of the Association be admitted, provided they be introduced by the committee on credentials.

ARTICLE III. All persons who become members of this Association shall be considered as permanent members, but may be expelled for improper conduct by a vote of two-thirds of the members present at any annual meeting.

ARTICLE IV. Every member in attendance at the annual meetings shall pay into the hands of the Treasurer the sum of two dollars as his yearly contribution.

ARTICLE V. Every local Pharmaceutical Association shall be entitled to five delegates.

SECTION III. *Of the Officers.*

The officers of this Association shall be a *President*, three *Vice Presidents*, a *Recording Secretary*, a *Corresponding Secretary*, a *Treasurer*, and an *Executive Committee* of three, which may include any of the members except the President, all of whom shall be elected annually.

SECTION IV. *Of the Meetings.*

ARTICLE I. The meetings shall be held annually, at such time and place as shall be determined at the adjournment of the previous meeting, observing that no two meetings shall be held consecutively at the same place.

CODE OF ETHICS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

The American Pharmaceutical Association, composed of Pharmacutists and Druggists throughout the United States, feeling a strong interest in the success and advancement of their profession in its practical and scientific relations, and also impressed with the belief that no amount of knowledge and skill will protect themselves and the public from the ill effects of an undue competition, and the temptations to gain at the expense of quality, unless they are upheld by high moral obligations in the path of duty, have subscribed to the following *Code of Ethics* for the government of their professional conduct :

ARTICLE I. As the practice of pharmacy can only become uniform by an open and candid intercourse being kept up between apothecaries and druggists among themselves and each other, by the adoption of the National Pharmacopœia, as a guide in the preparation of official medicines, by the discontinuance of secret formulæ, and the practices arising from a quackish spirit, and by an encouragement of that *esprit du corps* which will prevent a resort to those disreputable practices arising out of an injurious and wicked competition—*Therefore*, the members of this Association agree to uphold the use of the Pharmacopœia in their practice, to cultivate brotherly feeling among the members, and to discountenance quackery and dishonorable competition in their business.

ARTICLE II. As labor should have its just reward, and as the skill, knowledge and responsibility required in the practice of phar-

macy are great, the remuneration of the pharmacist's services should be proportioned to these, rather than to the market value of the preparations vended. The rate of charges will necessarily vary with geographical position, municipal location, and other circumstances of a permanent character, but a resort to intentional and unnecessary reduction in the rate of charges among apothecaries, with a view to gaining at the expense of their brethren, is strongly discountenanced by the Association as productive of evil results.

ARTICLE III. The first duty of the apothecary, after duly preparing himself for his profession, being to procure good drugs and preparations, (for without these his skill and knowledge are of small avail,) he frequently has to rely on the good faith of the druggist for their selection. Those druggists whose knowledge, skill and integrity enable them to conduct their business faithfully, should be encouraged, rather than those who base their claims to patronage on the cheapness of their articles solely. When accidentally or otherwise, a deteriorated or adulterated drug or medicine is sent to the apothecary, he should invariably return it to the druggist with a statement of its defects. What is too frequently considered as a mere error of trade on the part of the druggist, becomes a *highly culpable* act when countenanced by the apothecary; hence, when repetition of such frauds occur, they should be exposed for the benefit of the profession. A careful but firm pursuit of this course, would render well disposed druggists more careful, and deter the fraudulently inclined from a resort to their disreputable practices.

ARTICLE IV. As the practice of pharmacy is quite distinct from the practice of medicine, and has been found to flourish in proportion as its practitioners have confined their attention to its requirements; and as the conduction of the business of both professions by the same individual involves pecuniary temptations which are often not compatible with a conscientious discharge of duty; we consider that the members of this Association should discountenance all such professional amalgamation; and in conducting business at the counter, should avoid prescribing for diseases when practicable, referring applicants for medical advice to the physician. We hold it as unprofessional and highly reprehensible for apothecaries to allow per centage or commission to physicians on their prescriptions, as unjust to the public, and hurtful to the independence and self-respect of both the parties concerned. We also consider that the practice of some physicians, (in places where good apothecaries are numerous,) of obtaining medicines at low prices from the latter, and selling them to their patients, is not only unjust and unprofessional, but deserving the censure of all high-minded medical men.

ARTICLE V. The important influence exerted on the practice of pharmacy by the large proportion of physicians who have resigned its duties and emoluments to the apothecary, are reasons why he should seek their favorable opinion and cultivate their friendship, by earnest endeavors to furnish their patients with pure and well prepared medicines. As physicians are liable to commit errors in wri-

ting their prescriptions, involving serious consequences to health and reputation if permitted to leave the shop, the apothecary should always, when he deems an error has been made, consult the physician before proceeding; yet in the delay which must necessarily occur, it is his duty, when possible, to accomplish the interview without compromising the reputation of the physician. On the other hand, when apothecaries commit errors involving ill consequences, the physician, knowing the constant liability to error, should feel bound to screen them from undue censure, unless the result of a culpable negligence.

ARTICLE VI. As we owe a debt of gratitude to our predecessors, for the researches and observations which have so far advanced our scientific art, we hold that every apothecary and druggist is bound to contribute his mite towards the same fund, by noting the new ideas and phenomena which may occur in the course of his business, and publishing them, when of sufficient consequence, for the benefit of the profession.

At the third session a very interesting and full conversation was held upon the workings of the Drug Law; and Dr. Stewart, Examiner for the port of Baltimore, being present, was invited to give his views on the subject. He desired the opinion of the Convention in reference to the intention of the law, whether it prohibited the introduction of all varieties of drugs that are good of their kind, even though inferior—for instance, the inferior Cinchona barks, from Maracaibo, Carthagenia, &c. One invoice of these barks quoted at ten cents per pound, yielded two and a half per cent. of Cinchona, whilst Loxa bark, invoiced at thirty cents, afforded only a fraction of one per cent. These were not adulterated or deteriorated. He introduced the following resolution:

“Resolved, That it is the opinion of this Convention, that all varieties of drugs, that are good of their kind, should be admitted by the special examiners of drugs and medicines.”

In reference to barks, Dr. Stewart could say that perhaps a larger amount of the varieties of that drug came into the port of Baltimore than any other. That the merchants in that trade were so desirous of getting the best kinds, that it was quite usual for them to import specimens by way of the Isthmus, and have them examined before ordering their invoices, in order to see if they would pass the custom house inspector. That he had, (as Examiner at that port,) chemically examined a large number of samples of the bark, both Peruvian and Carthaginian, and that the latter had invariably contained more or less of the alkaloids, and were generally of good quality of their kind.

He therefore considered the fact that a drug is or may be used as an adulteration for other drugs, should not exclude it, if it is used to any extent on its own merits. In illustration, Dr. Stewart remarked that the Examiner might go on a vessel and observe, side by

side, two casks of oil, consigned to the same individual, one invoiced "cod-liver oil," and the other "sperm oil." On examination he finds that they are what they purport to be; the suspicion would arise very naturally that the latter was to be used for adulterating the former, yet should sperm oil be excluded because certain parties use it as an adulteration? He thought not, and on the same grounds he considered that the inferior varieties of barks and of rhubarb should be admitted, although some persons may use them for adulteration.

At the request of the President, Professor Carson, of the University of Pennsylvania, addressed the Convention on the subject before it. He coincided generally with the views of Dr. Stewart, as regarded the value of the barks in question. He expressed the opinion that numerous varieties of the so called Carthagena and Maracaibo barks possessed decided medicinal virtue, that several kinds of European rhubarb were of much value in medicine, especially in times when the officinal varieties are scarce, and that these drugs should all be admitted when not deteriorated or adulterated.

Mr. Haskell, of New York, advocated the same views, more especially as related to English rhubarb, bringing forward the testimony of Dr. Pereira, to the effect that some specimens of Banbury rhubarb were almost, if not fully, equal to the Chinese drug, and even of rather higher price. He also stated that a large demand existed in this country for yellow Carthagena barks. That the house of which he was a member, sold large quantities in powder, and that the parties purchasing it, did so, knowing its origin. He was not aware of the use to which it was put, but presumed that it was employed legitimately.

Mr. Fish, of Connecticut, stated, that through the part of New England that he represented, considerable quantities of the barks in question were used legitimately as a tonic; and that no instance of their being used as an adulteration of the Peruvian barks, had come to his knowledge.

Mr. Coggeshall, on the other side of the question, called the attention of the Convention to the item in Dr. Bailey's report, showing that three hundred thousand pounds of these barks had been rejected at the port of New York in about two years and a half. He argued that this bark was not consumed there—that it was not used in the manufacture of the alkaloids—that the allegation that it was used for making tooth powders, would hardly account for the great consumption of it, and the question naturally arose for what purpose was it imported? Mr. Coggeshall believed that it was used extensively to grind with the Peruvian barks as an adulteration, to make an inferior extract, which could be done cheaply and profitably, and which was largely sold as an officinal preparation—that many of the persons who came to our city to buy drugs, were not able to judge of their purity, and bought them without asking any questions, save as regarded price—and so convinced was he of the application of these false barks to these false purposes, that, as a protective measure, in his opinion, they should be excluded. And also in regard to English

and other European rhubarb, that the argument of Professor Carson would not hold good, while the markets were so well supplied with the Russian and Chinese varieties, to which the Banbury, regarded as the best of the European, was so very inferior. Entirely independent of this argument, however, Mr. Coggeshall considered that European rhubarb should be excluded, because of its peculiar adaptation and general use as an adulteration, owing to its fine color—which enables the adulterator to improve the appearance of the inferior Chinese variety, and to mix it with the Russian article in powder without depreciating its appearance, or, as it is done to a great extent, substituted entirely for the true article.

Mr. Coleord, of Boston, advocated the latter view, and hoped that the resolution would not pass.

Other members of the Convention joined in the debate, after which the question was taken on the resolution of Dr. Stewart, and it was lost.

As the importance of the subject introduced by Dr. Stewart, was fully appreciated by the Convention, at the same time that no direct course of action seemed proper for it to pursue, the following resolution was offered by Mr. Smith, of Cincinnati, viz :

“Resolved, That the whole subject of the inspection of drugs shall be referred to a committee, who shall be instructed to confer with the Examiners, and endeavor to arrive at some practicable means of fixing standards for imported drugs.”

The resolution was unanimously adopted, and Mr. Taylor, of Philadelphia, Mr. Meakim, of New York, and Mr. Burnett, of Boston, were appointed by the President to carry it into effect.

On motion of Mr. Procter, Dr. Stewart of Baltimore was added to the committee.

The business committee having signified their readiness to make a further report, the following resolutions pertaining to the subject just under consideration were read.

“Resolved, That in the opinion of this Convention, the law against the importation of adulterated drugs, chemicals and medicinal preparations, has already effected much good by excluding large quantities of inferior drugs from the market.

“Resolved, That inasmuch as the usefulness of this law will be proportioned to the ability and conscientious discharge of duty of the Examiners, that this Convention shall respectfully and urgently represent to the appointing power, the cardinal importance of preventing the removal of qualified Examiners on mere political grounds.”

Special committees were appointed to report upon “the indiscriminate sale of poisons,” and upon “secret or quack medicines.”

The Convention also made a declaration of its sentiments in reference to “Pharmaceutical Education :” 1st. Earnestly recommending organizations among the apothecaries, wherever they are sufficiently numerous, for mental improvement as pharmacutists, for the encouragement of pharmaceutical literature by the formation of libraries,

and for the adoption of rules of conduct calculated to elevate the character of the profession. 2nd. Recommending the formation of Schools of Pharmacy in all our large cities. 3rd. Urging the claims of apprentices and assistants upon the proprietors, as regards the facilities for learning, especially in providing the best books of reference for their use. 4th. Urging upon proprietors the importance of selecting, with care, their assistants and pupils, especially with reference to their fitness as regards natural endowments and preliminary education.

The Massachusetts College of Pharmacy having expressed a desire, through its delegates, that the next annual meeting should be held in Boston, a resolution was adopted accordingly, and the next meeting of the Association is to be held in Boston on the fourth Wednesday [24th] of August, 1853.

Mr. Edward Parrish, of Philadelphia, offered the following resolution and queries, which were read, and, after some verbal amendment, were adopted, viz :

Resolved, That the Executive Committee be requested to obtain, through the several Colleges of Pharmacy and Pharmaceutical Associations, previous to our next annual meeting, answers to the following questions, as far as expedient :

"1st. How many Apothecaries and Druggists are there in each of the principal cities and towns of the United States?

"2d. What organizations exist in the several states, and what is the number of their members as compared with the number of druggists and apothecaries in the localities which they include?

"3d. How far is the business of dispensing medicines separated from the office of prescribing?

"4th. Have you any information in regard to the practice of our art, and the professional character of its practitioners, in different localities, likely to be of advantage to the Association in promoting the objects it has in view?

"5th. Are there any state laws for the protection of the interests of the profession of pharmacy, for the suppressing of empiricism, or in reference to the sale of poisons?"

Mr. C. A. Smith, of Cincinnati, offered the following resolution, which was read and adopted :

Resolved, That the thanks of the Convention be presented to the President and Secretary, for the able manner in which they have performed the duties of their offices, and also to the Philadelphia College of Pharmacy, for the hospitality extended towards us."

On motion of Mr. Parrish, it was voted that the officers of this Convention, not specially elected under the Constitution, be considered the officers of the American Pharmaceutical Association until the election at the meeting next year—when the Convention finally adjourned.

ART. XXXIII.—CIRCULATORY DISPLACEMENT

BY H. B. ORR, of Nashville.

The process for extracting the active principle of medical drugs by circulatory displacement has until recently been regarded more as a speculation or theory than as a practical fact. Several years since it was spoken of by Mr. Alsop, of London, as convenient in making infusions; subsequently Dr. Benton suggested the idea of applying it in tincturing, and more recently Professor Procter has written in its commendation. But yet the intrinsic merits of the method have not received from pharmacutists that measure of regard which they seem to deserve.

My attention was drawn to this method of maceration by an article recently communicated to the *American Journal of Pharmacy* by Mr. Laidley, of Richmond, Virginia. I was pleased with the suggestions induced by the perusal of Mr. L.'s paper, and was constrained to try the method in a variety of cases, and thus confirm, what indeed seemed to be at once obvious, its practicability: my expectations were entirely realized, and it is this that prompts me to commend its investigation to pharmacutists.

This mode of tincturation is very simple and convenient in its construction. The best form of apparatus is a cylindrical vessel with a movable diaphragm and a closely fitting top. The liquid having been put into the vessel, the diaphragm with the substance on it is then introduced so that a thin stratum of the menstruum supernates above it. The whole adjustment is then made and no further attention is required.

This kind of apparatus is very well substituted by a bottle with a large mouth, the size of the bottle depending upon the bulk of the ingredients, observing to keep always as much depth of liquid beneath the drug as practicable, and then a bag as great in diameter and as shallow as possible completes the structure.

It will be observed that this form of maceration is in all the important points different and directly opposed to the old method; they are opposite in principle also. In the old mode the drug is put at the bottom of the vessel, in the new it is kept at the top of the menstruum; in the former you arrive at an approximate saturation by shaking the mixture, in the latter saturation is obtained by the natural precipitation which goes on constantly; the one demands attention throughout, the other needs no watching; the old process is re-

tarded by gravity, the new is facilitated by this principle, for gravity is the promoting cause of the circulation—it is really the *sine qua non* of the process. Immediately upon the adjustment of the apparatus, this principle is seen in active operation, by the colored solution descending in the vessel, (in consequence of the condensation in the union of the soluble substance with the menstruum,) affording ocular evidence that the solution is progressing. It is then a physical certainty that this mode is applicable, and we are forced to conclude that it is the only scientific mode of tincturation.

There is another feature in the process which will prove an additional convenience and abridgment in many cases, and which, so far as I am informed, has as yet been unnoticed. It is that of enveloping the substance in filtering paper before introducing it into the bag. By this arrangement the time and trouble of subsequent filtration is dispensed with. And this obviates an evil of some importance in itself: for with menstrua of a volatile nature, the time requisite for their filtration affords opportunity for considerable evaporation, and in proportion to this evaporation the bulk of the solution is diminished, giving to it an uncalled for density, this being a condition without any provision and of evil tendency. But by effecting the filtration during the process of solution, it not only aids the pharmacist, but is of advantage with respect to the *quality* of his product.

The circulatory method is thought to be more rapid in its operation, generally, than the usual mode; in many cases it certainly is decidedly so, as an instance of which guaiacum may be adduced, as in the preparation of ammoniated tincture of guaiacum. Here at the commencement of the process the colored saturated liquid may be seen to emerge from out of the bag and then to commence its meandering descent, with a waving motion, mirroring a variety of colors, giving to the operation a most beautiful appearance. This descent of the solution and the corresponding ascent of the less dense or unsaturated particles of the menstruum, have conferred the appellation of “circulatory” upon the process. The solution of gums, resins and sugar also affords instances of the facility of this method.

In point of strength, the result must show favorably for it, for at each moment the most active portion of the menstruum is in contact with the substance, so that the depletion must be thorough as well as the action rapid. And I cannot but reiterate the expression of Mr. Laidley: I hope pharmacatists will more generally avail themselves of so simple and easy mode of extracting the active principle of medical drugs.

ART. XXXIV.—PHARMACEUTICAL NOTICES.

1. *Tannate of Alumina*.—The London Medical Gazette, for Nov. 1851, contains an account of the Tannate of Alumina and its use, drawn from a paper placed before the Medical Society of London, by Mr. Rogers Harrison. He recommends its use in “the treatment of purulent and muco-purulent discharges from the urethra, especially when the latter were not of an acutely inflammatory character.” The method of using, was to throw into the passage an injection containing from two to ten grains of the salt dissolved in distilled water, the strength of the solution being determined by the smarting sensation experienced by the patient, it being advisable “to keep the strength of the injection up to the smarting point.”

Prof. William Procter, Jr., Editor of the American Journal of Pharmacy, states in the January number of that Journal, that in his examination into this substance he finds it to be “an amorphous salt, nearly insoluble in water.” He performed several experiments in its preparation, and was convinced that the “Tannate of Alumina of Mr. Harrison, is a mixture of tannic acid and alum, derived either from the evaporation of a mixture of alum and tannic acid, or from the washings of Tannate of Alumina.” The same salt is precipitated from alum on the addition of tannate of ammonia.

2. *Glycerin Ointment*.—Mr. John H. Ecky, in the January No. of the Am. Journ. Pharm., publishes a formula for an ointment which he found very useful in chapped hands, lips, excoriations of skin, &c. :

R Spermaceti, ʒss.
 White Wax, ʒj.
 Oil Almonds, ʒij. (f)
 Glycerin, ʒj. (f)

Melt the wax and spermaceti with the oil of almonds at a moderate heat, put these into a wedgwood mortar, add the glycerin, and rub until well mixed and cold.

3. *Camphor as an Antiseptic*.—In Hooker's Journal of Botany it is stated that in Sumatra, the native country of the camphor tree, a very ancient custom prescribes that at the death of a considerable person among the Botta royal families, who during his life had a claim to the title of rajah, (sovereign prince,) rice be sowed in a sacred place, and that the corpse be kept above ground among the living until the rice has sprung up, grown and borne fruit. Not before the rice is ripe and gathered in, do they think it right to bury

the corpse, and it is actually interred with the ears of the rice that was sown on the day of the decease. Thus the burial takes place after the lapse of five or six months. The corpse, like the rice grain six months before, is then committed to the earth; and thus the hope is emblematically expressed, that as a new life arises from the seed, another life shall begin for man after his death.

During the period previous to interment, the corpses are preserved in wooden coffins within the houses, the women wailing day and night. Trunks of the durian tree are hollowed out to contain the bodies; they are carved with much art, and have at the under part small apertures, through which the fluids may escape. The corpses contained in these coffins are not only spread over with powdered camphor, but entirely covered with it, in such a manner that all the space between the coffin and the body is filled with it. This is the only means known to the inhabitants of the Botta-lands of preserving the bodies of their kings, without smell or corruption, during so many months in the humid air of such a hot climate. Dr. Junghuhn saw a corpse which had been preserved in this manner during four months, and which was shrunk up like a mummy, and emitted no other smell but the penetrating odor of the camphor.

In this way an immense quantity of camphor (a quarter to half a quintal) is consumed, for the purchase of which the family of the deceased king must make the greatest sacrifice, and often sell all their cattle. Every village has such a rajah.

ART. XXXV.—ANALYSIS OF MINERAL WATERS.

1. *Nashville Sulphur Spring:*

Sulphuretted Hydrogen,
Carbonic Acid,
Hydrochloric Acid,
Sulphuric Acid,
Magnesia as a Sulphate,
Soda as a Hydrochlorate.

PROF. BOWEN.

2. *Sam's Creek Spring, Davidson Co.:*

Twenty Fluid Ounces.

Sulphuretted Hydrogen,

Carbonic Acid,
Sulphate of Lime,
Hydrochlorate of Soda.

PROF. TROOST.

3. *Tyree's Springs, Davidson Co.:*

Sulphuretted Hydrogen,
Carbonic Acid,
Sulphate of Lime,
" " Magnesia,
Carbonate of Lime,
Hydrochlorate of Soda.

PROF. TROOST.

4. *Shelby Chalybeate Spring, Nashville:*

Temperature of Spring 61 deg., while air was 90 deg.

Carbonic Acid, free,
Carbonate of Iron,
" " Magnesia,
" " Lime,
Chloride of Sodium,
Sulphate of Magnesia.

RICHARD O. CURREY.

5. *Bayley's Spring, Florence Ala.:*

Carbonic Acid, 324 cubic inches in a gallon,
Carbonate of Magnesia,
" " Soda,
" " Iron,
" " Potash,*
Iodine,
Chloride of Sodium.

The analysis of this spring was made in June 1852, in reference to the quality, not the quantity of its ingredients. There were distinct indications of iodine present, to the amount at least of three grains to the gallon of water. It probably exists in combination with the potash as an hydriodate. These springs are noted for their efficacy in scrofulous and dropsical diseases.

RICHARD O. CURREY.

* According to Prof. Tuomey.

6. *Congress Spring, at Saratoga :*

Carbonic Acid,	cubic in. 311 in a gallon.
Atmospheric air,	7
Chloride of Sodium,	grs. 385
Iodide of Sodium,	3,5
Bicarbonate of Soda,	8,98
Bicarbonate of Magnesia,	95,78
Carbonate of Lime,	98,09
Carbonate of Iron,	5,07
Silica,	1,5
Bromide of Potassium, a trace.	

STEEL.

7. *White Sulphur Spring, Va. :*

Sulphuretted Hydrogen,	cubic in. 2,5 in a wine gallon.
Carbonic Acid,	2
Oxygen,	1,4
Nitrogen,	3,5

 Total 9,4

Solid contents in a pint.

Sulphate of Magnesia,	grs. 5,5
Sulphate of Lime,	7,7
Carbonate of Lime,	1,1
Chloride of Calcium,	0,2
Chloride of Sodium,	0,1
Oxide of Iron, a trace.	
Loss,	0,4
	<hr/>
	15

PROF. W. B. ROGERS.

8. *Iodine Spring, at Saratoga :*

Carbonic acid,	cubic in. 336 in a gallon.
Atmospheric air,	4
Chloride of Sodium,	grs. 187 in a gallon.
Carb. Magnesia,	75
Carb. Lime,	26
Carb. Soda,	2
Carb. Iron,	1
Iodine,	3,5
	<hr/>
	294,5

PROF. EMMONS.

DEPARTMENT OF DENTAL SURGERY.

ART. XXXVI.—CONDITION OF DENTAL SURGERY IN ITS RELATION TO MEDICINE.

In the last number of the Journal we endeavored to show, somewhat *in extenso*, the claims of the Medical Sciences upon the Dental Profession, and also spoke of the importance of the teeth as objects of study to medical men, hoping thus to enforce the claims of Dental Surgery upon the general profession. If the facts and conclusions advanced are correct, it would at once suggest the mutual dependence of medical and dental science, and the fraternal relationship which *should* exist between the two professions.

Now we do not design to elaborate further upon this subject ; but the portraiture, as presented to our mind, of the state of things which *should*, and that which *does* exist, afford so striking a contrast, and seem so fraught with material for reflection, that we are induced to believe a delineation, though it be somewhat rudely sketched, of the present relationship, practically considered, of Medicine and Dental Surgery, may not be without interest and profit to the members of both. In all efforts towards improvement or reformation, it is well to keep in full view the actual as well as the desirable, lest by exclusive attention to the latter we delude ourselves with the idea that all is accomplished, when, perhaps, it has but just fairly begun. Let us then see what is the actual position of Dental Surgery and general Medicine with reference to each other.

And first, how stands the specialty before the general profession ? It is claimed to be a legitimate branch of the parent stock—it is conceded to be such by all parties. Has it been so cultivated by medical men ? Has any attention been bestowed upon it commensurate with that bestowed upon the other branches ? We speak not now of its very recent manifest revival, of the attention that is just

beginning to be directed towards it ; nor of the *very* few medical men who have ever made it an object of attention, and urged its claims upon their brethren, among whom might be mentioned the great names of Hunter, Rush and Cooper ; and in our own time, the less distinguished but no less magnanimous minds of Drs. Bond and Handy, who for twelve years have stood by and sustained the founders of the Baltimore College of Dental Surgery—the only institution, perhaps, that as yet can lay claim to much prosperity or real utility in behalf of the science. We speak of the mass of the medical profession.

With dentists the complaint of the deficiency and apathy of medical men in regard to Dental Surgery is loud, unceasing, and almost universal ; and some have depicted this state of things in strong colors.

“Until within the last ten years,” says Dr. Hullihen, (a gentleman alike eminent in dental and medical attainments,) “the dental profession was looked upon as a *trade*, and its practitioners as mere mechanics ; while gentlemen who devoted themselves to the treatment of the eye, the ear or skin, took rank at once with the physician or general surgeon. On what ground was this distinction predicated ? By what authority was it sanctioned, and by whom promulgated ? A disgraceful ignorance of medical science among the dental practitioners was the ground-work. The medical faculty were the willing accusers, and the untiring persecutors. They condemned without stint, a calling they knew not how to practice, and a practice they knew not how to improve. * * * They first created the necessity for an empiric, and then croaked forth their withering contempt on the creature their own ignorance had made. * * * Thus was the science of Dental Surgery neglected, and thus abused, and thus did it fall low, in the very depths of general disrepute.” *

Professor Bond, who though a physician, has been for several years identified with the progress of Dental Science, with opportunities to observe the difficulties it has had to contend with, makes the following remarks in his valuable work on *Dental Medicine* :

“Until very recently, the treatment of the diseases of the teeth seems to have been considered less a proper specialty of medicine than a mere mechanical craft.” “Surgeons and physicians were generally profoundly ignorant of the importance of these organs to general health.” “Even now,” he continues, “diseases of the teeth are rarely mentioned in medical schools, and eminent professors of sur-

* Valedictory address before the class of the Baltimore College, 1850.

gery have publicly confessed themselves incompetent to teach the students how to extract them." Again, in speaking of the morbid effects of diseased teeth, he says: "It is exceedingly uncommon to hear that a physician in searching for obscure causes of protracted ill health, has paid any attention to the state of the teeth, though often their terribly diseased condition cannot escape involuntary recognition by more of his senses than one. The matter is never alluded to in lectures delivered to medical classes, and, in fact, is hardly recognized at all as a subject for pathological or hygienic consideration." And again, in reference to Dr. Rush having enquired for the cause of a case of epilepsy in the state of the teeth: "An enquiry which is even yet very unusual in such cases, but which serves to show the superiority of Dr. Rush in judgment and comprehensiveness of thought."

But we need not refer to authority, when we might appeal to matter open to universal observation. And in the particular referred to the state of things has not materially changed from what it was ten or twelve or even two or three years ago. There has, indeed, been improvement in the dental profession within the past few years, and an indication of change for the better is seen in the medical. But with the great mass of practitioners the teeth seem equally regarded as foreign to the province of the physician, nor is dental science any more regarded as a "medical science" or become the object of study as such.

Some time ago the British authors said scoutingly, "Who reads an American book?" And even now the medical profession among us virtually echo back, "Who reads a dental work?" If one enquires in the office of a physician of any pretensions to reading for a treatise on the eye, he is sure to find it, and perhaps is handed three or four thick octavos on the subject, while he would seek in vain for a publication upon the teeth or their appendages. Every practitioner ought to be, theoretically at least, well informed in dental medicine and surgery; and yet you might ransack the libraries of a thousand physicians or surgeons, and scarcely turn up a single copy of any reliable modern work by a practical dentist. But do medical books supply the place of such? *Less*, we believe, is said about dental diseases by modern writers than by the older authors. And how does that little which is said tally in the main with the published observations of dentists, among whom are authors not only reliable as specialists, but also well versed in general medicine, and competent to instruct in any department. Is there any change for

the better at the colleges? where if you hear any allusion to dental maladies and their treatment, it proves to be but to be told that there are "dental colleges which teach *such* things." As though this kind of instruction had *now* become *wholly* foreign to the province of medicine! As though the bare fact of the existence of dental colleges, was sufficient excuse for the deficiency of teachers of medicine in this species of knowledge, or for their neglect to impart so much of it to their students as is essential to success in medical practice!

Moreover, medical associations in some sections have seen fit to exclude graduates of dental colleges from membership; and not only this, but it has been broached by medical journals as matter of serious question, whether even graduates of medicine, "*who practice dentistry*," should be allowed a place in such assemblages! Verily, "the profession" would seem disposed to guard sedulously every portal, and entrench themselves safely within their "fastnesses," apprehensive, as it were, lest by some "hook or crook," they should obtain some trifling information in dental science—lest through some "nook or cranny," a straggling gleam of light from this source should here and there find access, to illuminate, perchance, a dark niche in the aræna of the common science!

With dentists, who should be the proper judges of the extent and character of information prevalent in relation to their special calling, the neglect and deficiency referred to are subjects of universal comment. Nothing is more common in the mouths of dentists, when alluding to general practitioners, than the exclamation, "How *little* they know about Dental Surgery!"—an exclamation, no doubt, often based upon a want of conception of how *much* there is to know in medicine proper, but yet significant of the truth.

But perhaps the dental profession has become the embodiment of medicine, and "medicine" so called, is but a "branch" of Dental Surgery! Well, let us see what affinity we find to exist, viewed from this quarter. But hark! "*What has MEDICINE to do with DENTISTRY?*" It is the battle-cry which goes up from the profession on beholding a medical diploma unfurled as a "guarantee to patronage"—true enough, when we consider alone the details of dental science and the practical acquirements in the art, but wofully at fault when we regard medicine as the true basis of study and practice in this specialty. Waiving this question, however, the remark itself at once portrays the position which, in our own ranks, dental science is

forced to occupy in relation to medicine. It speaks of antagonism rather than kindredship.

Again, what credit is generally accorded to practical dentists when extending their inquiries into the medical sciences? Not only by the masses and the medical profession, but even by those who hold rank as reputable dentists, such investigation would seem to be regarded as an idle curiosity, a waste of time with matters foreign to the vocation of the dentist, rather than a study which it is his business and duty to prosecute as an aid in his particular branch. Indeed, works relating to these sciences are not expected in our libraries, and dental practitioners, when availing themselves of the means of extending their information in this direction, are likely to incur the suspicion of meditating an abandonment of the special for the general practice.

And what do we hear from "high places"—from the halls and outer courts of our dental colleges? The most prominent professors of these institutions, who have heretofore done much to rank our art as a medical specialty, to illustrate its relations and dependence as such, and to enforce the necessity of a knowledge of medicine in its practice, are now found declaring the independence of the one from the other, and laboring to prove that but comparatively little affinity exists between the two. We find them virtually, and some of them avowedly, denying the utility to our profession of the great bulk of what constitutes an indispensable part of a medical education, and even urging that an alliance with medicine, through a similar mode of instruction, would be disreputable—that "for our own independence and self-respect" we should avoid an "amalgamation"! (And that, too, while with the same breath complaining bitterly of bad treatment in the exclusion of dental graduates from medical societies!)

It is true this comes chiefly from those identified with a separate and independent system of dental instruction, in defence of such system and in justification of its deficiency in the medical branches; but it comes from "leaders" in the profession, and the sound thereof is beginning to re-echo from the "rank and file."

The very few who of late openly stood forth to vindicate the full claims of dental surgery, advocating a range and mode of instruction calculated to re-unite it to medicine proper, and plant it upon an unquestioned equality with the other specialties, were met by uncompromising opposition; all the dental journals, we believe, took "a turn" at them, fire following fire in quick succession, until our periodical literature seemed all ablaze with indignation.

Such, then, is the present attitude of this specialty—such its rela-

tion to the parent science ! The medical historian of a future age, when he comes to portray the condition of medicine in the middle of the nineteenth century, will find in the case of Dental Surgery material for an episode of peculiar interest and instruction.

But this anomalous and discordant state of things, unpromising and discouraging as it would at first appear, is in itself of favorable augury. It too palpably enforces a change to pass unheeded, and he is a bad observer of the "signs," who does not see a change for the better in prospective. The very turmoil and discord now manifest in our profession, shows that it is in its transition stage. The spirit of reform is at work upon the chaotic void, and the jarring of discordant elements is but the prelude to a general "upheaval" and remodelling.

B. WOOD.

ART. XXXVII.—DENTAL EDUCATION.

Remarks and Recommendations on the Professional Education of Dentists. By JOHN TRENOR, M. D., Dentist, of New York.

We alluded to this production in our last, promising to give some extracts from it. This we now do with pleasure, not only from the importance of the subject under discussion but also on account of the excellent suggestions of a more general nature.

In order to demonstrate the necessity of a knowledge of Medicine and Surgery to the dental practitioner, Dr. Trenor treats first of Medical, Surgical and Mechanical Dentistry separately, and closes with some remarks as to the best mode of obtaining a professional education.

"1st. *Of Medical Dentistry.*—It is a position, the correctness of which will be at once admitted, that in all general derangements of the system, and of local ones also, where the system becomes sympathetically involved, be they short or protracted, mild or severe, characteristic alterations and in the same ratio, are produced upon all the soft parts of the mouth. The altered actions of the several functions, resulting from disease, particularly of the stomach, or of any part of the mucous membrane, are by no signs more decidedly indicated, than by the changed sensations and altered aspect of the lining membrane of the mouth and tongue ; hence the universal custom, in all deviations from health, of an examination of this latter organ, from the accuracy of the information it communicates, and from the greater facility with which it can be exposed for inspection. Whatever

be the character or severity of this deranged state of the mucous membrane and soft parts of the mouth, the teeth, from their immediate connection with those parts, are necessarily exposed to, and are materially and injuriously influenced by those changes, be they mild or otherwise ; whether from altered secretions of the parts, consequent upon derangement of distant organs, or simply from local irritation and inflammation ; or, as frequently happens, from both these causes combined. These are fruitful sources of evil consequences to the teeth, in all stages of existence. It may be proper here to remark, that as the degree of capability of resisting injurious influences on the teeth varies almost in every individual, so likewise does it vary in the same individual at different periods of his age. When the teeth first appear through the gums, they are softer in their texture than as the individual advances in years ; so that in old age, they become, where they have been originally healthily formed, extremely hard ; consequently, the same deleterious influences, if applied while young, produce infinitely more serious evils than they could do at a later period of life. Hence the necessity of greater attention to the health, at this particular period, on account of the teeth, even though these be perfect in their development. But, if, as most frequently happens, there are imperfections in their formation, and that perchance the health of the person be delicate or precarious, the closest personal and professional care and attention will be needed for their preservation. Not only does all observation and experience fully sustain the correctness of the foregoing remarks, but they establish, with equally unerring certainty, the destructive effects which all deviations from the standard of health exercises upon those important organs. Indeed, there are probably no two facts more popularly associated together, or more unequivocally correct in themselves, as cause and effect, than with bad health to have bad teeth. The influence of a healthy or diseased state of the system is in no particular more decidedly manifested, than upon the organs of mastication. Hence the obvious and absolute necessity that the practitioner who undertakes to treat the diseases of the one, should be familiar with the causes, their character, variety, &c., &c., which produce them in the other. * * * * *

“ From the consideration that in all general derangements of the system, whether idiopathic or symptomatic, the lining membrane of the mouth, and the connecting soft parts, partake likewise of this altered action, as set forth in the preceding statements, and that this again often materially implicates the teeth, we pass to a more practical illustration of some of the consequences of those changes, for the purpose of still farther strengthening the position here assumed. Among the variety of those changes there are some so stealthy in their commencement and early progress, as scarcely to attract any attention from the patients themselves, until the durability of their teeth, or at least of many of them, is seriously compromised. The changed secretions of the mouth, seeming gradually but constantly to soften and penetrate into the substance of the teeth, until considerable por-

tions of their bony structure are entirely disorganized. There are others, again, connected with derangements of the stomach, and depending upon or excited into action by the changes in the weather, and which are of very frequent occurrence, attended with a good deal of pain and irritation of the soft parts of the mouth, sometimes developing pretty active inflammation in those parts, producing very serious annoyance, and not unfrequently great pain and suffering, apparently in the teeth themselves, and which is much aggravated by any attempt to use the teeth for the ordinary purpose for which they are intended. Under such circumstances, the dentist is at once applied to, from the very natural inference, that such cases come more appropriately within his province. If he be without medical knowledge, and that perchance no defect can be discovered in the teeth, the patient is very coolly told that nothing of consequence is the matter with him, and that with time and patience, all annoyance will gradually subside. But if, unfortunately, some of his teeth are found to be decaying, and which most frequently happens, the mere mechanical or imperfectly medically educated operator, goes to work at once filling and filing, scraping and extracting, aggravating and procrastinating tenfold the patient's suffering, ultimately ending, in a great many instances, in swellings and ulcerations of the gums, and the loss of one, or it may be of several of his teeth. Every experienced practitioner of dentistry, whose professional acquirements correspond with what the public has a right to expect, is constantly called upon for advice and relief in such cases, and must be forcibly struck with the woeful mismanagement, which, in numberless instances, befall the poor patients, from the ignorance or incompetency of those to whom they may have applied; for the least evil that can happen to them in such hands, is to be let alone. The educated and intelligent practitioner of dentistry, however, while he sees the impropriety of any present operations, as certain to produce aggravated sufferings, will at once be able to prescribe the necessary remedies for his immediate and effectual relief; or if the case be one complicated with much general derangement of the system or otherwise, beyond the responsibility which he ought to assume, and which if he be duly qualified for the position in which he is placed, he will have no difficulty in ascertaining, he will promptly direct his patient to the care and advice of his more experienced medical practitioner." * * *

As a familiar illustration of the derangements of the system in which the complication here indicated occurs, Dr. T. instances the influenza, as a striking example, a complaint which from the dental irritation attending it would very naturally drive the patient to the dentist for relief, although requiring constitutional treatment. He next adduces cases in further illustration of the subject in regard to which he remarks:

"The first of the foregoing cases will show clearly enough the inability of the medical practitioner, aided though he be by the mere

mechanical dentist, fully to comprehend, or successfully to treat diseases of such and similar character. In the second instance is pointed out a class of complaints which more correctly come within the sphere of the educated dentist, but he must be fully instructed in all the requisites of his department. The practitioner of medicine is obviously incompetent to their management. In the third is exhibited the incapacity of the mere mechanical dentist even to comprehend, much less to prescribe, understandingly, for the treatment of diseases on which he is nevertheless constantly consulted. While by the dentist, whose course of study has made him familiar with the human system in health and in disease, local and general, such cases are treated with as much certainty, safety and success, as any other class of ailments can be by the most intelligent and experienced practitioners of medicine.

On passing to the consideration of surgery, as forming a necessary element in the professionable attainments of the dentist, we are forcibly struck with the effect of habit in familiarizing and thus reconciling our minds to what, in itself, is exceedingly inconsistent, if not altogether incorrect. While the uselessness of medical knowledge to the practitioner of dentistry is attempted to be maintained by those of weight and authority, at least on most other professional topics, the necessity of surgical knowledge to the dentist is very generally conceded, yet there is no hazard in asserting the impossibility of a thorough proficiency in surgery, unaided by or unconnected with a corresponding degree of medical acquirements, yet custom, and even authority require, that the dentist should possess the one, while it denies, in this case, the necessity of the other. If it were possible to make them two separate and distinct branches, and in their pursuit and application entirely independent of each other, and it were asked which of the two would be most useful to the public, and most needed by the dentist, the preference must at once be given to medicine. * *

"That the mouth should be liable to a variety of diseases, frequently entirely local as to extent, is by no means singular, when we remember the vicissitudes of heat and cold, and the endless varieties and sometimes entirely opposite characters of the innumerable articles which constantly pass into it; add to this the causes of irritation and disease, of which the teeth are often either the exciting cause or the immediate source, and it will be but reasonable to expect that the soft parts of the mouth must often be the seat of derangement, sometimes very severe in its character." * * * *

In this connection Dr. T. observes that the peculiar anatomical structure of these parts is apt to be overlooked by physicians and surgeons, whence results so frequently errors in diagnosis and treatment. "From the peculiar structure of these parts, some of the signs of inflammation, most obvious in tissues less dense and more yielding, are here so trifling or obscure, and the pain so intense, as to induce the attending physician to believe that it is chiefly an affection

of the nerves, without any particular irritation or derangement in the parts immediately surrounding or connected with them." Hence the frequent administration of quinine, &c., in such cases. "Again," he remarks, "this same structure leads to errors of opinion as to the character of the swellings and enlargements which are not unfrequently here met with," which he illustrates by the following case.

And here we would suggest that if dentists would more generally make a record of cases occurring in their practice, and publish to the medical profession such as might be valuable for instruction or admonition to physicians, instead of, as is too often done, descanting, in a private way, upon such cases to their patients, it might lead to improvement of, and consequent confidence in medical practice, instead of inducing popular distrust both of the resources of medicine and the qualification of its practitioners. But to the Doctor's case :

"Was requested to assist at an operation for the removal of a malignant tumor, situated on the right superior maxillary bone, covering chiefly the external plate of the socket of the first molar tooth, in a child of about 12 years of age. Several medical and surgical gentlemen were present, and the operation was about being proceeded with, when it was deemed necessary first to extract the first molar tooth and the eye tooth of the same side, it being intended to make a semi-circular section of the jaw, high enough to pass a little above the swelling. The writer assured the gentlemen present that there was nothing of a malignant character in the tumor, and that the only operation necessary was the removal of the molar tooth, together with a proper course of treatment to restore the child's health, which was very much disordered and enfeebled, when all evidence of disease would very soon and entirely pass away. They nevertheless still persisted in removing three of the teeth, and in cutting out a piece of the alveolar socket, but which would have been very soon absorbed, after the loss of the teeth. It was now found that the piece of socket cut away was *perfectly sound*. This effectually opened their eyes as to the true state of the case, and of course further proceedings were wisely deemed unnecessary. Now the error in diagnosis here, was owing to the peculiar character of this texture ; had a tumor of similar feel and aspect been located in parts less dense and more yielding, there would have been more warrant for the opinion which has been given of the nature of this case, in the first instance. As the parts involved in the swelling were not removed by the operation, and as the child soon after fully recovered, the error in deciding the case to have been malignant, was made conclusive. As a dentist constantly sees these parts, under all their varied aspects of health and disease, if he has been made familiar with medicine and surgery, it would be very improbable that he could ever commit such serious mistakes. There are minor matters of constant occurrence, requiring, on the part of the dentist, the kind and

extent of knowledge here contended for. The treatment of fistulous openings at the roots of teeth, which are constantly met with, demands an entirely different course from what in other branches of surgery would be necessary. The diseases of the gums, whether from local or general causes, involving, as they do, the loss or preservation of the teeth, as well by decay as by destruction of the alveolar sockets, forming a very extensive class, calling for a kind of knowledge which must not be expected from, and certainly will not be possessed by the mere mechanical practitioner. The simple allusion to these matters must satisfy every intelligent mind that the education of the dentist must reach infinitely beyond the mere ends of his fingers, if the capabilities of the profession are intended to be made fully available, and the interests of the public are duly and truly regarded."

Dr. Trenor does not regard mechanical proficiency as constituting the chief part in the acquirements of the dentist, although conceding its obvious importance. "That it is an essential auxiliary," he says, "is most certain, but that it is not the most difficult to acquire, nor the most important in practice, it is believed can be very clearly and conclusively established." He thinks "it does not surpass, and probably on a fair comparison, scarcely equals that without which a surgeon can never attain to the rank of a successful and accomplished practitioner."

Having defined the relative position of mechanical to medical and surgical dentistry, the writer proceeds to the last division of his subject, viz: "in what manner that course of education necessary to a practitioner of dentistry can be best acquired:"

"As already indicated in the preceding pages, medicine and surgery, which rank first in importance and are most difficult to attain, should receive the largest portion of his time and attention; in fact, they should be as thoroughly mastered as if they were intended to constitute the chief objects of his future career. For it must be borne in mind, that after he has once entered upon his professional pursuits, and particularly when his time shall have become much occupied with its duties, his opportunities of practical improvement and experience in those branches will necessarily become materially circumscribed, while the necessities for this kind of knowledge will be daily augmenting. He should, therefore, be the more diligent in gaining every possible degree of proficiency in them, while he may have the time and the opportunity. Having such objects in view, no one, it is presumed, will undertake to deny or to doubt, but that a well organized medical school affords the most efficient fountain from which the knowledge here indicated can be most effectually drawn. When it has been obtained, in accordance with the rules and requirements of our medical schools, he may be considered as having mastered full two-thirds of what should constitute his professional attainments. The next step in his career is the application of the principles he has

now become familiar with, to the speciality to which it is his intention to devote himself; and here it is that the deficiency in our medical schools becomes apparent. There is not, it is believed, a medical school in the country, in which either of the professors of the practice of medicine or of surgery ever make the slightest allusion, in their lectures, to this speciality, the professors of anatomy being the only ones who touch at all upon the topic, and for all practical purposes, the little they do say is altogether useless; in fact it must be considered as totally neglected." * * * *

This state of things, and the evils resulting from it, would be, in Dr. T's opinion, remedied "by constituting a professor who should give a regular and full course of lectures on this branch in our medical schools, and in this way, its true principles and correct practice would be as effectually inculcated, and its peculiarities and difficulties, whether medical, surgical or mechanical, as fully explained, and as clearly demonstrated, as in that of any other department of medical science." This he urges upon the consideration of trustees and faculties of medical schools, not only as affording the means for adequate qualification in dental surgery, but as called for by the wants of the medical profession, the members of which are frequently, especially in the country, required to exercise many of the duties of the dentist; a task for which, owing to the present defective system of medical instruction in this department, they are utterly unqualified.

The "Remarks" is certainly a very masterly production, and whatever may be thought of the author's conclusions, the subject under discussion strongly commends itself to the consideration of the dental and medical professions.

B. W.

ART. XXXVIII.—ON THE CAUSE OF DECAY IN THE TEETH OF CHILDREN.

"What is the nature of that diathesis or constitutional predisposition or disorder, (if any,) which so often occasions decay in the teeth of our children?"
—*Dr. Drake to the Miss. Val. Association D. S.*

We meet the following remarks upon this interesting subject in a small pamphlet entitled "A letter to Daniel Drake M. D., on the cause of premature decay in the deciduous teeth, in which is embodied a review of the discussion of the Mississippi Valley Association of Dental Surgeons upon the same subject." Having examined, individually and collectively, the conclusions arrived at by this society, the writer says:

"I now come to the second object of this letter, that of attempting

an answer to your first question, which, according to my understanding of the subject, the "Mississippi Valley Association of Dental Surgeons" have utterly failed to give. In making this effort I shall be very brief. I shall content myself by simply stating facts, without entering into any minute details.

The strict interpretation of your question embraces an enquiry into all kinds of decay to which the deciduous teeth are liable. Now as there are two prominent causes of this kind of decay in the temporary teeth—causes which differ from each other both in their nature and the time of life at which they commence—it is important, therefore, that they should be here referred to. The one is almost identical with the prevailing cause of caries in the permanent teeth, and usually commences its ravages in the molars, and that about the fifth or sixth year of the child's age. The other may be said to be *sui-generis*. It shows itself most frequently in the incisors, and is liable to commence at any period, from the time the teeth first show themselves through the gums, up to that when dentition is fully completed. Believing that your inquiries were intended only to embrace the last mentioned cause of disease in the deciduous teeth, I shall therefore confine my answer solely to a description of this cause; deferring all further notice of the other until I come to reply to your second question respecting the premature decay of the permanent teeth.

The "diathesis, or constitutional predisposition, or disorder, which so often occasions decay in the teeth of our children," is remotely constitutional in its nature, and appears to partake both of a scrofulous and of an acquired vice: of a scrofulous vice, because it is most prone to attack the teeth of scrofulous subjects: of an acquired vice, because the general system must be likewise much impaired for a shorter or longer period before the immediate cause of the caries of the teeth is induced.

The immediate cause of the decay is a malignant ulcer, most generally peculiar to the gums, but occasionally attacking the cheek.

The ulcer is most liable to occur at three particular epochs of a child's life, and appears to increase in malignancy with the child's increase of years.

The first period, and most common and mildest form of the disease, occurs during the cutting of the incisor teeth. It sometimes commences with the first appearance of these teeth; sometimes not until they have all acquired their full length through the gums.

The ulcer is generally confined to the extreme edge of the gums, revealing only a small, light, ash-colored, zigzag line, so small that it is rarely detected by either physician or nurse. Upon a close examination, the edge of the gum will be found separated from the teeth, and the body of the ulcer plainly seen between the edge of the gum and necks of the teeth.

The gum reveals but little signs of inflammation, is not very sensitive, and may remain in the condition just described several weeks

without any material increase or diminution of the ulcer.

The teeth become slightly loose, rough and dark colored, and are finally more or less destroyed, depending on the virulency and duration of the ulcer. *It is this form of the disease that occasions so many children to have dark colored, decayed, and broken off incisors, from the age of one year and upwards*, while the molars may be sometimes entirely sound. This form of the disease has never, before, so far as I know, been described.

The second period that the disease occurs, but much less rarely than the first, is about the time of cutting the molar teeth, and is sometimes very malignant. The ulcer usually appears on the gum at a point where a tooth is about to penetrate, and proceeds to a greater or less extent, often around the entire dental arch. The disease may appear in its mildest form, and run only along the extreme edge of the gums, or it may involve the greater portion of both the gum and alveolar process, loosening the teeth, turning them dark and softening them, as though they had been exposed to the strongest acids. This form of the disease has been occasionally observed and described.

The third form of the disease is fortunately still more rare, but fearfully fatal. It usually appears during the shedding of the temporary teeth, and although always commencing on the gum, it rapidly extends to the cheek, often destroying both jaw and cheek, as well as the life of the patient. This form of the disease has been described by medical writers under the name of *cancreum oris*.

All three of the forms of the ulcer just described are liable, and have often been mistaken, for the effects of mercury. But the sharp, ragged, yet well defined edge of the ulcer—the excoriating and corroding effects of the discharge—the slight tumefaction of the gums, and the terrible fetor of the breath, even in its mildest form—a fetor having nothing of the order of that arising from mercurial salivation—are characteristics sufficiently marked to say nothing of the roughness and discoloration of the teeth, to prevent any mistake of that kind, if closely observed."

ART. XXXIX.—PRACTICAL HINTS TO THE DENTIST.

We do not expect to give, under this head, any thing particularly novel or interesting to the experienced practitioner, only designing to throw out, in a desultory way, a few hints that may prove a guide in some respects to the novice, in the more common Dental operations.

Drilling the teeth.—This operation is chiefly resorted to, first, for the removal of caries in its incipient stage; secondly, for the separation of the teeth preparatory to plugging; and thirdly, for reducing the length of those longer than their neighbors, as is often the case with

the front teeth, or for smoothing and polishing them when roughened by wear, fracture, &c.

The separation of the teeth by the file is not admissible, except in case of actual decay, and even then in quite young patients it had better be dispensed with if possible. If the decay has but just commenced upon the enamel, let the teeth be separated by "wedging;" for this purpose, wood, India rubber, cotton &c., have been recommended; we prefer narrow strips of lamb-skin pressed between, and cut off even with the teeth within and without, reducing the thickness of the strips or doubling them as called for. Then smooth and polish the surface of decay. When necessary to plug the teeth of such subjects, space should also be obtained by wedging as above, especially if the file be not required for other purposes. With adults, where the jaws are fully developed, and the teeth have acquired the compactness of structure pertaining to maturity, this operation is much less objectionable. Still it must be regarded as the least of two evils, and in some cases even here it should only be resorted to as the least of two *great* evils.

In all separations the filed surfaces are to be made smooth and polished, and a shoulder should be left at the base of the separated teeth, to prevent their closing up again, and to enable the patient to keep the approximal surfaces clean by ordinary attention.

Patients are always fearful that the dentist will separate their teeth too widely; a greater fear is that he will not separate wide enough—not enough for the thorough extirpation of incipient decay, nor for the perfect insertion of a filling, if this be the object, nor for the prevention of a subsequent closure of the space. These things not attended to, the end to be accomplished is very frequently defeated.

In cases of decay where the cavity is large and its margins thin and weak, the separation *must* be free and wide, unless indeed its walls are equally thin to the full depth of the cavity, or unless it be in a front tooth where *appearance* is more an object than permanent utility.

As a general rule the separation should be made something in the form of a triangle truncated at its apex. In the back teeth, where not exposed to view, the apex points towards the gum. In the superior front teeth it points externally, these teeth being filed away chiefly from the internal edges of their approximal surfaces. This has several obvious advantages in convenience and utility, as well as appearance, and in appearance not only by concealing the extent of the space made, &c., but in preserving that peculiar beauty of each individual tooth, which results from its anterior surface presenting a

gradual and uninterrupted curve, whereby the impression is conveyed of a complete circle. Hence the unnatural aspect when a segment is removed by the file.

The separation of teeth may often be effected by the use of strong pointed instruments; in a great many cases the most of the labor can be accomplished in this way with greater facility than by filing, while it is also less disagreeable to the patient.

A "*New Form*" of Arsenic for destroying dental nerves and obtunding the sensibility of the dentine.—Arsenous acid is no doubt the most prompt and efficient agent as yet known for the above purpose. We have however found that arsenic in its *metallic form* possesses advantages over the former in many cases.

We have used it as obtained from the shops and sold under the common name of "fly stone," which is the metal slightly oxidized—a sub-oxide, called "grey oxide of arsenic." It is to be finely pulverized, and is used in the ordinary way, for destroying a nerve. When employed to remove the sensibility of the dentine, we apply it either by means of white wax or gutta percha softened by heat. Having dried the cavity, take a bit of wax or gutta percha and touching the powder with it until sufficient adheres, introduce it to the desired place. The wax is then smoothed off level with the cavity, where it may be suffered to remain from a day or two to a week or more. We have always found it effectual.

Applied to a nerve it is slow in its action, but we have not found it to produce pain as is frequently the case with arsenous acid. It seems to act for the time upon the point of contact only, so that in destroying a nerve it has to be re-applied every day or two often for a week.

For removing the sensibility of a tooth we regard it invaluable, as there can be no danger of its affecting the nerve within, like that we have cause to apprehend from arsenous acid. The agent acts only upon the surface with which it is in actual contact.

We have no doubt but that arsenic, in the metallic or native state, might be found of great value in medical practice, especially as a local application in many cases that will suggest themselves to the physician. It seems to have received little investigation as a medicinal agent being barely alluded to in the books (with but a brief description of its physical properties) as a prelude to the more active compound which bears its name. We hope some of our medical friends will test its virtues.

B. WOOD.

MISCELLANEOUS NOTICES, &C.

We make the following extract from the *New York Dental Recorder*, edited by Drs. C. C. Allen and A. Hill. It is from a very cordial notice of "our" Journal by the Norwalk editor, Dr. H., whose ready pen has contributed so much to enrich our periodical dental literature, and whose communications, always suggestive of something *beyond* the beaten track, have attracted such general attention in the profession.

By the way, the Recorder is, so far as we are apprised, the only *monthly* devoted to our specialty; and perhaps this is the reason we always hail its appearance with unusual pleasure—as agreeable acquaintances are prized in proportion to the frequency of their visits. The Recorder generally comes to us punctually, but there was "a slip" with the *December* number. But to the extract:

"It may seem to our readers a trifling circumstance that a Journal professing to teach the "Medical and Physical Sciences," and leaping into adult existence with one bound, with a dignity and strength clearly pertaining to manhood, should be found to embrace our own department as a legitimate member of the same family. And that too, without any exhibition of conscious superiority. Here they nestle as closely together, as if they were triplets of the same birth, and reared by the same maternal hand. We say, it may seem to some, as a circumstance of no account, but we must regard it as a *significant* thing. And when taken in connection with the establishment of dental lectureships in medical colleges, and other signs of the times, we think it marks a new era in the history of our profession."

We will here take occasion to express our thanks, (and we now speak in the plural—in behalf of our confreres also,) to the journals and papers which have so kindly and cordially given the "Southern Journal" favorable publicity, and also to those professional gentlemen whose flattering letters have encouraged us to believe the enterprise is receiving a warm approval. The peculiar feature we have adopted—that of a division of labor in the editorial management—has particularly elicited favor. In this respect we believe the Journal is *sui generis* in medical literature, without a model or pioneer in this or any other section of the Union—the editors having the exclusive control and responsibility of the departments they represent, so that the work is virtually a union of three journals in one, yet all devoted to the interests of a common science, the parts of which though separate in practice, are one and inseparable in principle. In the several branches of the Healing Art, we conceive the true motto to be that inscribed upon our national standard—*E Pluribus Unum*—and of this conception the "Journal" is a tangible embodiment. Not that we object,

by any sort of means, to separate publications devoted to the several specialties of medicine, but that we believe all should virtually be embraced in one common bond of union, governed by the same great principles.

B. W.

History of the Medical Department of the University of Louisville, an introductory lecture delivered November 1st 1852. By LUNSFORD P. YANDELL, M. D.

This very concise and characteristic lecture we have received and read with a great deal of pleasure. To the medical profession generally it will be found an entertaining document. But to the long list of alumni of the University, scattered throughout the southwest, this history of their alma mater will be peculiarly interesting. We regret that our limited space will not allow a more extended notice in the way of extracts, than the following, which we take from the prologue and heartily commend to the readers of the *Journal*:

"Of the three professions commonly styled "learned," Medicine alone rests upon observation and experience. Law and Theology are historical and dogmatic. The profound jurist is made by the books of his profession. His business is with precedents and the authorities in law. With him reading is everything, and other things being equal, his eminence will be in proportion to the extent to which he has stored his mind with legal precepts and decisions. Experience and observation are of great avail in the practice of the law, but they have no part in the education of the lawyer. So in Theology:—all is founded upon authority. In every question involved in this sublime science, the appeal lies to the Bible. With the Bible alone, the student, possessed of a good mind, and shut up to himself and without aid from any one, might frame a perfect system of theology. His observation, however varied and accurate, his experience, however deep, would not enable him to enrich or adorn it with any new fact or principle. It must all come from that only source of heavenly light—the volume of revelation.

"But with medicine it is otherwise. In our profession, authority is worth but little. We have no traditions or decisions that have the binding force of law—no authorities from which we cannot appeal—no records of infallible wisdom but the book of nature. Medicine is experimental and demonstrative; it consists of phenomena, which must be seen, scrutinized, and pondered upon. The eye of the naturalist, the laboratory of the chemist, and the knife of the anatomist are all requisite to its advancement. Books are of the last importance to the student of medicine, but books alone could never make a thorough physician; they could never impart a knowledge of the taste of opium, or the color of chlorine;—they could not teach a student how to determine whether a blister had drawn well, or how a patient looked with measles or smallpox. He is obliged to see and observe as well as read. He appeals not to the fathers in medicine for any fact in human anatomy, but repairs to a more infallible source of knowledge; he is content with nothing short of demonstration."

Hospital of the State of Tennessee.—This institution was created by the legislature at its last session, and went into operation about the first of September.

It is located in the suburbs of the city, on an elevation, commanding an extensive view of the city and its environs. A finer site could not have been selected for a Hospital.

Having been formally occupied as an asylum for the Insane, most of the conveniences and appurtenances of a Hospital were already furnished, the grounds handsomely improved, and the whole lot, embracing an area of eight acres, enclosed with a substantial stone wall. Altogether it is one of the finest Hospitals in the southwest.

The resident Physician is prepared to receive a few students into the Hospital, where they will have opportunities of prosecuting their studies under the most favorable circumstances, with the advantage of all the surgical operations and chemical lectures delivered in the institution, with the additional opportunity of studying disease at the bedside.

J. W. K.

Tennessee Medical Society.—The twenty-fourth annual session of the MEDICAL SOCIETY OF TENNESSEE will be held in this city on the first Wednesday in April 1853. We expect an unusually large delegation, and as it is a *state* society, we hope to see delegates from the different divisions of the State.

W. P. J.

American Medical Association.—The sixth annual meeting of the AMERICAN MEDICAL ASSOCIATION will be held in the city of New York on Tuesday, May, 3, 1853.

The secretaries of all societies and other bodies entitled to representation in the association, are requested to forward to the undersigned correct lists of their respective delegations as soon as they may be appointed; and it is desired by the committee of arrangements that the appointments be made at as early a period as possible.

The following is an extract from Art. II of the constitution: "Each local society shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly constituted medical college or chartered school of medicine, shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital, containing a hundred inmates or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution of good standing shall have privilege of sending one delegate."

EDWARD L. BEADLE.

One of the Secretaries, No. 42, Bleecker st., New York.

Prize Essays of the American Medical Association.—At a meeting of the Association, held at Richmond, Va., May, 1852, the undersigned were appointed a committee, to receive voluntary communications on medical subjects, and to award two prizes, of \$100 each, to the authors of the best essays.

Each communication must be accompanied by a sealed packet, containing the name of the author, which will be opened only in the case of the successful competitors. Unsuccessful communications will be returned on application, after the first of June 1853.

Communications must be addressed, (post-paid,) to the chairman of the committee, Dr. Joseph M. Smith, 56 Bleecker street, New York, on or before the 27th of March, 1853.

JOSEPH M. SMITH, M. D.,

JOHN A. SWETT, M. D.,

W. PARKER, M. D.,

GURDON BUCK, M. D.,

ALFRED C. POST, M. D.

New York, Sept. 14th, 1852.

Onward.—Our readers will see that FRANK A. RAMSEY, A.M., M.D., of the *East Tennessee Record of Medicine and Surgery*, and THOMAS A. ARCHISON, M. D., of *Kentucky*, have become connected with us in the editorial department of the Southern Journal.

Dr. Ramsey, a few years since, probably in 1847, was called from Knoxville—his present place of residence—to the occupancy of a chair in the Memphis Medical College, which he filled with the same distinguished ability which has marked his more recent editorial career.

Dr. Archison, of Bowling Green, Kentucky, is a gentleman of the highest order of intellect, well cultivated, is thoroughly posted in the literature of the profession, has an extensive practice, and is, withal, an eminently descriptive, vigorous and fluent writer. EDS.

REPLY TO DR. HARRIS.

We copy the following from the *American Journal of Dental Science* for January, which comes to hand as our last form is preparing for press. It is the first part of an editorial relating to a communication of ours on the expediency and advantages of extending the scheme of instruction in dental colleges so as to require a previous course of lectures (for a single term) in a regular medical school.

Dr. B. Wood on Dental Education.—The conclusion of Dr. Wood's article on Dental Education, will be found in the present number of the Journal. The article is well written, but we fear the doctor has not given the subject as much careful thought as its importance demands. We had occasion, a few months since, to notice a series of articles from his pen, on the propriety of establishing a college of Dental Surgery in Nashville, published in a paper of that place, in which the importance of such an institution there is strongly urged. This recommendation not having been carried out, he soon after suggested the idea of uniting faculties of dentists to the faculties of medical colleges, offering as a reason for such union, that dental colleges could not furnish the necessary amount of medical information. Surely their means of instruction are no less ample now than they would have been had a college of Dental Surgery been established at Nashville. The last suggestion not having been any more favorably received than the first, he now contends strenuously for a preliminary medical course, but we fear that his zeal has led him into injustice towards dental colleges—the value of which to the student of dental surgery he so ably set forth a few months since, and which, it must be acknowledged, have done more than any other single influence to advance the profession to its present position."

Surely, Professor Harris' readers will hereafter regard us as a very unreliable and disorderly sort of personage! "*We* fear" the professor did not give our articles as "careful" examination as justice requires, or he certainly would not have worded his editorial in such a manner as to convey an impression altogether unwarranted by the facts. He represents us as first advocating *one* thing, as then opposing the *same* thing, and advocating quite a *different* one, and as finally abandoning this for a *third* adverse to both. And he would *imply* that all this inconsistency, all this tampering with the educational interests of our profession, was but the result of some individual disappointment or pique in being successively foiled in our temporary and discordant schemes! Now, we do not accuse the professor of *wilful* misrepresentation in this matter. His mind would seem to be so preoccupied with his favorite system, as to be unable to comprehend any thing else. Whatever deviates from this, or is not circumscribed within its fixed limits, he seems to regard as antagonistical thereto—whoever essays to advance the interests of our science, and does not go at it through *this way*, is "a thief and a robber!"

Had Doctor Harris simply informed his readers that, in the first place, we recommended the establishment of a school of dental instruction in Nashville; that we next set forth a plan of organization for such an institution, by which we hoped to obviate the prominent objections to the system adopted in those already in operation; and that now we had, through his journal, the organ of this particular system, proposed improvement by way of removing those objections—then his readers would have had a better idea of our position. It would then have been his place to show, if he could, that our views, arguments or plans were discordant. Had he examined the evidence for this purpose, he might, perhaps, have seen that the same train of ideas and argument pervaded the whole. He might have noticed, in the articles suggesting the propriety of a dental school in this place, the opinion *reiterated*, that it should be created as a *department of a regular medical school*, "*as being devoted to a legitimate branch of medicine, coming properly under the fostering care of the latter*," and he might have discovered that, from the start, we entertained objections to the present independent and partial system of dental instruction, though we refrained from parading them before the unprofessional reader—that we then had in view a somewhat different organization—the very kind of organization which we afterwards set forth through a professional journal, and which he refers to as the *second* "suggestion." He might also have learned that the proposition for extending the scheme of instruction in dental colleges, as *now* organized, and which he represents as an *after-thought*, was suggested and made public through the *Dental Times*—a periodical conducted by Prof. Harris' editorial associate—when our "first recommendation" was being presented for consideration. In brief, he might have discovered that the *improvement of Dental Surgery as a Medical Science*, was the prominent idea throughout—recognizing alike the necessity of general acquirements in its practice, and of a com-

mon bond of union between this and the medical profession. Whether this be effected by extending the present system of education in dental colleges, or by a new organization—whether dental colleges *require* a course in medicine, or medical schools *provide* for a course in dental surgery,—would seem to be immaterial; the preference for either might very well be left to circumstances. Working towards the same end, though from different points, they certainly would not be incompatible!

In regard to the suggestion relating to a dental school upon the plan proposed, having met so cool a reception, as the professor would seem disposed to chronicle, and with apparent *gusto*, he may not have had the means of judging. From the manifestations, public and private, we thought it was generally very kindly and “favorably received.” And we heard no objection from any prominent source, *except* from Professors Harris and Blandy, of the Baltimore Dental College, and Professor Taylor, of the Cincinnati Dental College. Did Professor H. suppose it would be at once “carried out,” after informing the profession through his journal, upon the authority of his “experience as a teacher,” &c., that “it would require fifteen years of unremitting enterprise to secure a class of fifteen students”—that, “if a school of dentistry were established in Nashville, at this time, sufficiently large classes could not be drawn together to *justify the continuance* of the labors of those who *might become associated* in the enterprise.”!

But the subject was presented simply for consideration, not expecting it would be acted upon without mature and deliberate consultation; all *action* in regard to it was left entirely to the judgment and inclination of our professional brethren. We certainly had no personal ambition or desire in the matter; and moreover, since the *mode* of dental instruction very soon began to receive a thorough canvassing, promising increased light upon the subject, we should have been disposed to wait the result before acting upon any plan.

B. W.

We send with this number of the Journal, a copy of the communication, as re-printed from the *Nashville Journal of Medicine*, to which Professor Harris alludes in the *second ‘specification’* of charges preferred in his editorial, as some of our readers may be curious to know the nature of the “suggestion” referred to. We may, hereafter, should there seem to be call for it, re-publish our article on “Dental Education” from the *American Journal Dental Science*. B. W.

American Medical and Pharmaceutical Associations.—Desirous of acquainting our readers with the progress of pharmacy in the United States, we have given up a large space of our department to the publication of the proceedings of the American Pharmaceutical Association, recently organized. While we commend them to the perusal of our medical brethren, we feel assured that pharmacutists will not overlook them. The work to be accomplished by the new organization is of no little importance, as it involves the true mission of pharmacy as well as the success of the profession of medicine. Owing its origin to a refusal of the American Medical Association to receive a delegate from the New York College of Pharmacy, it should be regarded as a fortunate circumstance, should the association ultimately reach the great ends it is designed to accomplish. Two national associations, therefore, exist, pursuing different modes—as they differ in character, to attain the same noble purpose—the elevation of the Science of Medicine. We agree, therefore, with the *American Journal of Pharmacy*, that “the interests of physicians and pharmacutists are sufficiently distinct to make it good policy to avoid any professional amalgamation.” We however, believe, that as the one profession is dependent upon the other, there should exist some sort of correspondence between the two associations. It would not, therefore, be improper, but in our humble

opinion, highly judicious, to institute a Corresponding Membership in each association. The reasons for this are obvious. Questions, in which each are equally interested, often arise during their deliberations, to the elucidation of which "corresponding members" would greatly contribute. Take, for instance, the working of the Drug Law. Both associations, during the past year, had this subject under consideration. No one can dispute the good that would have resulted from a fraternal exchange of views between them. No less advantageous would have been such an interchange of opinions in reference to the sale and use of *quack medicines*. A committee has been appointed by the American Pharmaceutical Association, to report on this subject at its next session; and in all probability they will recommend that no membership be held with any one who engages in their traffic. They will thus discountenance quackery *in toto*. But what will the American Medical Association do? Will they refuse membership to any M. D. who *prescribes* patent medicines, or who, in his professional dignity, veils all his practice in secrecy, even, it may be, instructing his apothecary to withhold his valuable recipes for his own private use. There are quacks among politicians and quacks among physicians. To discountenance *secret nostrums* and *quackery*, in all its forms, there should be a clear understanding, and a concert of action between the two associations. And if full membership be improper, then "corresponding membership" would not, but on the contrary, be highly conducive to good. We throw out these few hints, and hope they will receive more than a mere glance from the medical and pharmaceutical press.

R. O. C.

The Committee on Fevers.—With a view to carrying out the objects of the *State Medical Society*, we have sent to the address of honorable members of the profession, probably three hundred circulars, respectfully requesting information with regard to the history of continued Fevers in Tennessee. Our collaborators have each written to quite a number of their friends and acquaintances. And in addition to all these solicitations, we have written more than a hundred private letters, urging gentlemen in East, West, and Middle Tennessee, to favor us with any information in their possession, bearing upon the objects of the committee. With the exception of communications from Dr. Deaderick, Dr. R. L. Scruggs, Dr. Long, and one or two others, we are wholly without manuscript material upon which to found our report.

To Dr. Deaderick—through whose kindness we are permitted to publish his letter on fever—and others who have so promptly responded to our enquiries, we tender our sincerest thanks. To those who may still intend to write, we say, make haste, gentlemen, if you would oblige us.

W. P. J.

State Hospital.—Being occasionally consulted by persons residing at a distance, in reference to the terms, &c., established by the Trustees for the admission of patients into the Hospital, we would state that the accommodations at the State Hospital are ample, and equal, in point of comfort, to the best hotels in the city, at the rate of \$4 or \$5 per week, including medicines, medical attention, nursing, &c.

Contagious and infectious diseases are excluded by law, so that patients need have no apprehension on this point, in coming into the Hospital.

A number of rooms have been furnished, in the female department of the house, for the accommodation of female patients, who will be attended by a good female nurse, under the supervision of the Matron of the Institution.

As the Physician resides with his family, in the Hospital, patients will have all the comforts and attention to be had in the best arranged private hospitals.

JOHN W. KING,

Resident Physician.

The Medical Department.—The press of original communications excludes from the first department of this number, several valuable selected articles. Instead, however, of selections from exchanges, we present to the mind of our readers a richer feast, in the articles of Doctors Deaderick, Winston, Baskett and Atchison.

Dr. Deaderick was a worthy class-mate of the venerable Dr. Felix Robertson of this city, and as our readers generally know, was the first Surgeon who per-

formed the amputation of the lower jaw. This he did more than forty years ago. Dr. Winston's interesting paper on artificial urethra, involves some points of peculiar importance.

Dr. Baskett's on Cholera Infantum is eminently practical in all its details.

Dr. Atchison's case, so graphically delineated, is one of remarkable interest.

Articles such as these, from men of known and acknowledged talent and attainments, need no praises from us. They will be read, and laid away to read again.

W. P. J.

New Medical Journal.—We have received the *Prospectus* of the Virginia Medical and Surgical Journal. Edited by George A. Otis, M. D., and H. L. Thomas, M. D., of Richmond, Va. Each number will consist of 82 pages, large octavo, the first number to be issued the first of April, 1853, and monthly thereafter. Price \$5 a year.

The Nashville Journal of Medicine and Surgery for February has just been received. We notice a marked improvement in the typographical appearance of the new volume and a laudable determination manifested on the part of the editor to make the Journal, in all respects, worthy the continued support of the profession. We did not receive the January number.

Teeth and Gold Foil.—We neglected to acknowledge in our last the receipt of a sample of artificial teeth from Mr. John Klein, of Philadelphia. They consist of pivot, plate and molar teeth of different sizes and shades. These teeth are well formed, the coloring and shading very natural, and for beauty and strength will compare favorably with any we have seen. Having heretofore had frequent occasion to use the teeth of Mr. Klein, we can recommend them to the profession.

Hodson's Premium Gold Foil we have been using for the past year, and find it excellent. Those who try it once will be likely to continue its use thereafter.

B. W.

GIDEON ALGERNON MANTELL, L. L. D., F. R. S., F. S. G., &c., died at his residence in Chester Square, London, Nov. 10, aged 64. He was the most distinguished Geologist in England. He is the author of several valuable works on the Science of Geology, viz: *The Wonders of Geology*, 2 vols.; *Medals of Creation*, 2 vols.; *Geology of the Isle of Wight*, *Petrifactions and their Teachings*, *The History of a Pebble*, *Day's walk around Lewes*, *The Fossils of Sussex*, &c., &c., besides numerous memoirs. Whilst he was thus ardently prosecuting his favorite science, he was also engaged actively in the practice of the profession of medicine. Exact and thorough scientific knowledge combined with the enthusiasm of a discoverer in connection with the perfect system that he observed in his labors, enabled him to accomplish so much.

Dr. THOMAS THOMSON, Regius Professor of Chemistry in the University of Glasgow, died on the 2d of July 1852, aged 79. He was a lecturer on Chemistry for forty-six years, from 1800 to 1846.

Antidotes.—Chloroform is stated to be, from its relaxing properties, an antidote for poisoning by strychnine. Camphor has been found to answer the same purpose.

Test for the presence of Mercury. It is stated in the annals of pharmacy that any of the salts of Mercury, placed on a sheet of bright copper, may be detected by a strong solution of iodide of potassium. A white metallic silvery stain will be developed, which cannot be mistaken, as no other metal presenting a similar appearance is deposited by the same means. In this way corrosive sublimate may be detected, in a solution unaltered by potash, or iodide of potassium. In a mixture of calomel and sugar, in the proportion of one of the former to two hundred of the latter, a distinct metallic stain will be detected with one grain of this mixture.

Solvent of Quinine.—Tartaric acid is said to be a better solvent for disulphate of quinine than diluted sulphuric acid. One third of the weight of the quinine salt is a sufficient proportion to effect complete solution.—*London Journal Medicine.*

E. O. C.

SOUTHERN JOURNAL.—NOTICES.

Enlargement of this Number, &c.—It will be perceived that we have enlarged the present number of the Journal to eighty pages, while at the same time, condensing, in smaller type, the most of our miscellaneous notices. When we undertook the work, we expected, judging from the history of medical journals generally, that for the first year, the cost of publication would considerably exceed the receipts, and were willing to take the responsibility of this in the hope of contributing to the advancement of medical literature in the South, by increasing the means of communication, and thus soliciting to active exertion, the talent which has too long been latent in our midst.

We are, however, now encouraged to believe that the Journal will sustain itself from the start, and whatever it does over this, we intend to expend in its improvement, in such way as may seem most conducive to the interests of the profession. If, therefore, the profession lend it that pecuniary aid which the object in view would seem to merit, we trust we shall not flag in our exertions to make the work all that could be desired. If it has thus far been approved, there need be little doubt, in view of the valued co-operation of the talented gentlemen to be editorially associated with us in future, and others who may favor us with their contributions, that it will hereafter be worthy of a cordial support.

Our supply of the first number is becoming exhausted, notwithstanding the precaution of printing a large extra edition for the purpose of distribution. We therefore respectfully suggest to non-subscribers who have received the first number but do not care to preserve it, that they will do us a great kindness by returning it to the address of the Journal.

Letters from members of the profession are frequently received requesting a copy of our "specimen number" for themselves or friends, and several of our subscribers have kindly furnished us with a list of names among their acquaintances whom they suppose might subscribe upon being furnished with a copy for examination. We thank our friends, very warmly for this evidence of interest and favor in behalf of the Journal, and only regret that the limited supply on hand forbids our sending out any more of the first number except to actual subscribers. The present number, however, will be forwarded in such cases, and to others who may request it, hoping it will be returned by all who do not wish to subscribe.

Exchanges.—We sent our first number to all the Medical Journals whose address we had, without regard to difference in size or price, believing that an interchange of thought and observations between members of the profession in different parts of the Union one of the best means of advancement in medical science. Several have promptly and cordially responded and we place them upon our exchange list. Those who have not we "let pass" until they do. We send the present number to some whose address we have since obtained, who if they desire the first number, will please indicate it by forwarding their's from January.

All exchanges, papers and other publications transmitted by mail should be directed to "*Southern Journal Med. Sciences.*"

NOTICES OF THE PRESS.

SOUTHERN JOURNAL OF THE MEDICAL AND PHYSICAL SCIENCES.—Such is the title of a new scientific journal, which it is proposed to publish bi-monthly in this city under the editorial care of Doctors John W. King, Wm. P. Jones, R. O. Currey and B. Wood. The editors issue this number as their prospectus, willing that the enterprise shall be judged by the merits of this. It is a neat pamphlet of some seventy or eighty pages, neatly published at the office of Mr. J. F. Morgan. The number before us is replete with interesting original articles, which are practical in their nature and their bearing upon Medical Science. We doubt not the editors will be able to equal ever hereafter the high standard of this their peculiar prospectus. They are gentlemen of professional intelligence, experience and skill, as able to wield the pen as the scalpel. The division of

the labor among them is very happy, and will contribute greatly to the interest and variety of the work.--*Nashville Daily Gazette*.

SOUTHERN JOURNAL OF MEDICAL AND PHYSICAL SCIENCES.--We have received the first number of this new candidate for public favor. It issues from Nashville, Tenn., is exceedingly handsome in appearance, contains seventy-two octavo pages, and is to be published bi-monthly. The Journal is to be devoted to the objects of Medical, Pharmaceutical and Dental research: each of those departments being under the charge of able and accomplished gentlemen. It is designed to make the publication a faithful and independent record of the present state and progressive advancement of the different departments of Medicine--aiming to meet the wants and deserve the approbation of the profession in the South and South-west. As far as we are able to judge, the first number of this Journal is able and interesting. It certainly has a more enticing look than most works devoted to the healing art. The editors of the department of Medicine and Surgery, Drs. J. W. King and W. P. Jones, are both members of the Baptist church, and highly honorable, useful and successful practitioners. They wield able and elegant pens. We need not add that we wish the enterprise the greatest success. To all physicians and dentists who may read this we cordially commend the Southern Journal. It is published at the low rate of \$2 per annum, *always* in advance.--*Western Recorder*.

We have received the January number of this Journal. It is full of matter highly interesting to the medical profession. Edited and published, as it is, here in Tennessee, the profession should give it a cordial and generous patronage.--*Nashville Union*.

We have glanced hurriedly through its pages, and though we are not competent to determine the value of the work as a Medical Journal, we very readily discovered that the editors handle their subjects with much care and elegance in style of composition. We presume the work will be one of permanence and value, highly creditable to the city.--*Nashville Banner*.

The first number of this Journal has been laid on our table. We do not profess to be competent to decide on the ability of the several articles, but we know the gentlemen Editors, stand at the head of their profession, and to be among the first writers of the South.

Under the direction of these gentlemen the Journal cannot fail to take the first place among the Medical Journals of the age, and prove a valuable acquisition to the medical literature of the day. We bespeak for the Journal the liberal patronage of all those who wish to encourage a home or Southern literature.

The Journal is a bi-monthly, of 72 octavo pages, gotten up in beautiful style, and is "*tout a tout*" the finest specimen of taste in the art typographical that has ever been laid on our table. It is an honor to all the professions, engaged in bringing out the work. We wish it the success it richly merits.--*Tennessee Baptist*.

The specimen number is well executed, contains an interesting variety of matters, and we have no doubt but that the subsequent numbers will exhibit the same good taste and ability. We wish our neighbors success.--*Transylvania Medical Journal*.

The specimen number contains 72 pages of interesting matter connected with the above named subjects, several of them pertaining to our own profession, from the pen of Dr. Wood. The typography is clear, and the whole done up in a style that reflects much credit upon the publishers. We have always admired Dr. Wood as a writer on dental subjects, and hailed his contributions, as among the best, to the current literature of our profession. And it affords us pleasure to know that he has now so fair a field in which to exercise himself, in connexion with other able and distinguished writers. We shall look with interest for each successive number of the "Southern Journal."--*New York Dental Recorder*.



THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
MAY, 1853.

DEPARTMENT OF MEDICINE AND SURGERY.

ART. XL.—HISTORY OF CONTINUED FEVERS IN TENNESSEE.

By FELIX ROBERTSON, M. D., of Nashville.

TO THE COMMITTEE OF THE STATE MEDICAL SOCIETY :

I regret that in making a retrospective sketch of my experience in the fevers of this country, I have to rely entirely on my memory—having kept no record of my cases, and am deprived of the little aid my account books would afford, those of the first twenty years being lost or misplaced. It perhaps will be advantageous, in some points of view, to take a hasty notice of the first settlement of this region ; although for some years its history is almost entirely barren on the subject of fever, yet it may lead to some reasonable conjectures on the general causes of fever :

For the first fifteen years of the history of the population of this region, fever would scarcely make an item in it. An occasional intermittent could be met with, but such a thing as a bilious or continued fever was scarcely known. I well recollect, and can never forget, the singular, deep, and abiding impression a knowledge of the first death I ever heard of from that cause, made upon me. Hearing of a dozen butcheries by the Indians, would have produced nothing like such a shock. A very stout, athletic emigrant, had made his temporary home a half a mile from where I was boarding and going to school. During the autumn he took a trip down the river in a keel

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boat, and after a tedious trip, returned very low with what they called a slow fever, and in a few days after reaching home he died. I was then about ten or eleven years old, had never heard of such an event, and could not realize to myself that a stout, powerful looking man, could lie down and die, without having received any bodily violence. I mention this fact to give some idea of the rare occurrence of fatal fever in those early times.

Soon after this period, say in 1794 or 95, the Indian depredations in this country ceased. This event opened up new inducements to immigration, and a rapid population of the country was the consequence. Extensive preparations for farming were made, great quantities of timber were deadened, and, consequently, an immense amount of decay and decomposition of vegetable matter followed—and from that time may be really dated the existence of fever. This state of things went on in an increased ratio up to the time of my professional acquaintance with disease. The rich valleys of Harpeth, particularly, had been rapidly settled, and as early as 1802, when I commenced the study of medicine, fever was very common in that region, and it continued so, more or less, for some fifteen or twenty years. In the fall, whole families sometimes would be down with fever, from the mildest intermittent, to the gravest bilious or remitting fever. The physicians of that day had a hard time of it—most desperately muddled, bad roads to trudge through to get to their patients, and no quinine to help them out of the difficulty when they got there. It is painful, at this distant time, to look back and think of it. In the bilious or remitting fever of those days, we generally found our patient with a flushed face, hot, dry skin, a full, hard, bounding pulse, of from ninety to one hundred and twenty. We almost invariably found that general blood-letting was necessary—that, with purgatives, small doses of tartrate of antimony, constituted our active means of combatting the symptoms. Perhaps we frequently prevented the patient from dying, but I doubt whether we *cured* many. In spite of all our remedies, the fever would in some cases run on until the patient was reduced exceedingly low, fall into low, muttering delirium—*subsultus tendinum*—picking at the bed clothes, with dry, furred tongue, and dark, sordid collections on the teeth. Those cases were generally called typhus, and treated with the liberal use of diffusible stimulants. It was surprising to see what quantities of these articles could be borne. I have known a delicate female to drink a quart of the best brandy every twenty-four hours, and still recover. Our fevers of late years, it seems to me, have

much less inflammatory action attending them. I have very rarely used the lancet in fever cases for the last twenty years. One reason of this, however, is the introduction of quinine in the treatment of fevers. As early as 1829 or 1830, I commenced using quinine in the treatment of autumnal remitting fever. Late in the fall of 1830, I was requested by Dr. Waters to visit a young woman with him, who lay very low in an attack of bilious or remitting fever. He had been attending on her for some time, and believed there was but little hope of her recovery. I found her worn down with the fever, and really a very unpromising case. I informed the doctor that I knew of nothing that in my opinion gave any promise in the case, unless it was the sulphate of quinine, and I doubted the power of that to arrest the work of death in this forlorn case. The Doctor looked at me with surprise, and observed that he had not imagined that quinine could act beneficially in such cases. I then told him that I had used it in several cases of remittent fever with the happiest effect, but perhaps none of them were quite as unpromising as this. He said that he felt confident that with the ordinary course of treatment she must die, that he was anxious to give her even the remotest chance of recovery, and that he would at once use the quinine. The next day I saw the Doctor and enquired after his patient. He informed me that he had that morning found her without fever, and he had strong hopes of her recovery. She did recover.

About twelve months after this occurrence, I was again called on by Dr. Waters to visit, in company with another medical friend, a member of his own family, who was reduced extremely low by an attack of bilious fever, a little girl about nine years of age. I found pretty much such a case as I was called by him to see the preceding fall. I again proposed the use of quinine, as in my opinion offering the only prospect of relief. I shall never forget the look of utter astonishment from our mutual medical friend. He very candidly, and in a most positive manner, declared that, in his opinion, the use of quinine would prove promptly fatal. It appeared that the case of the young woman of the previous year had been entirely forgotten by Dr. Waters, but the moment I called his recollection to it, he acknowledged the striking similarity of the two cases. He put her upon the quinine, and in spite of our friend's prognostic to the contrary, she speedily *recovered*. Since I learned the use of quinine, I feel very little more apprehension of the ultimate issue of a case of fever than of toothache ; I never think of its proving fatal.

I must not, however, omit to state that I have observed in the

last few years, reports of cases of a fever which has been termed typhoid, and in which it is said that quinine does not act as a curative. Of these facts I am personally unacquainted, having never seen a case of typhoid fever. All the fevers which I have been in the habit of meeting with, yield to the proper use of quinine. Of course I do not include the exanthematæ. I must also exclude an *occasional* case of fever in which the brain is deeply involved at the onset, perhaps irremediable congestion taking place. I have lost two such cases within the last ten years, in my private practice, and perhaps three or four in the Penitentiary. Of late years I am of opinion that many cases of fever arise from other causes than the miasma produced by the decomposition of vegetable matter, such as sudden and great changes in the temperature of the atmosphere, persons getting over-heated and suddenly cooling, &c. I do not know that these differ much in their symptoms or proper treatment from the first named.

Some thirty years since I met with a few cases of fever occurring in the winter, and all in one family. The principal difference I observed in them, from the ordinary fever, was, that although the pulse was hard, the artery appeared to have a smaller volume, and the pulse was more frequent. I treated them all by blood-letting and an antiphlogistic course. They were tedious, but all got well. They occurred in a family composed of father, mother, and I think seven children, all grown or nearly so. Their oldest daughter was first attacked in the latter part of autumn, and was attended by another physician. She died. Another was soon attacked, and I was called to see it, and one after another, in like manner, until all the children were gone through—the father and mother alone of the family escaping an attack. No other person in the neighborhood during the time, had the disease—they generally became alarmed, and held as little intercourse as possible with the sick family. The different cases occupied the whole winter. At the same time, a like fever, it was thought, was passing through a family on White's Creek. The physician who attended them, I understand, called it typhus, and said bleeding was inadmissible. Some four or five, I think, died.

Some twenty years ago a fever made its appearance in the negro family of Mr. John Harding, living six miles in the country. I think it continued amongst them a year or more. He lost fourteen, and at length sent all the sick—some fifteen or sixteen—to Maury county, and placed them under the care of Dr. O'Riley, who lived there. None of those sent out died, and the disease attacked no more of the

few who remained at home. He had some forty or fifty, perhaps, in family, and they were much crowded in their cabins. Dr. Jennings attended some, perhaps all of those who died. An account of the disease from him would be interesting. Since that time, some eight or ten years ago, a fever attacked the negro family of Capt. Abram Demoss, living on Big Harpeth, in this county. It continued a long time in his family and a considerable number of them died. Dr. McNairy, I think, attended some of them. A history of it might be interesting.

ART. XLI.—GENERAL TOPOGRAPHY OF MIDDLE TENNESSEE.

By Prof. J. M. SAFFORD, of Cumberland University.

If we could be elevated so as to obtain a bird's-eye view of that part of Middle Tennessee between the Cumberland Mountains on the east, and the Tennessee River on the west, we would see before us a great oval depression, or *basin*, running diagonally almost through the State, and surrounded, *on all sides*, by an elevated *table land*. Thus the latter forms a zone encircling the basin. The rim of the basin is more or less deeply notched, all around, by the spurs and ridges running into it from the table land, yet the general outline is tolerably well defined. There is one ridge or spur, shown upon the map, of considerable importance—that separating the waters of Duck River from those of the Elk. The entire basin is about one hundred miles long, and fifty or sixty broad, its longer axis running nearly north-east and south-west across the State. The entire area within is limestone of Silurian age, in geology; hence we have called it the Silurian basin. * Upon the map this general outline is marked out

* *References of the Map.*—The rocks of Middle Tennessee, west of the Cumberland Mountains, which belong, for the the most part, to strata below the pentremital carboniferous limestones, are here divided into five groups, commencing with the lowest:

- | | | |
|---|---|-------------------------------|
| 1. Stone's River Group, comprising | } | Stone's River beds, |
| | | Lower Lebanon limestone, |
| | | Upper Lebanon limestone. |
| 2. Nashville Group, comprising | } | Silicious or sandy limestone, |
| | | Lower Nashville beds, |
| | | Upper Nashville beds. |
| 3. Harpeth and Tennessee River Group, or grey limestone. | | |
| 4. Black Slate, (cropping out around the escarpments of the basin.) | | |
| 5. Silicious Group, (the "silicious stratum" of Dr. Troost.) | } | Silicious beds, |
| | | Cherty limestone |

by the heavy black line representing a stratum of black slate, which crops out on all sides of the basin. It includes the eastern and greater part of Davidson county, the south-eastern part of Sumner, the western parts of Smith, DeKalb, Cannon and Coffee; the whole of Wilson, Rutherford, Marshall and Bedford; the eastern and larger parts of Williamson and Maury, and the northern parts of Giles and Lincoln. The basin is traversed by four series of low ridges, which run nearly east and west, dividing the waters of the different rivers within its limits.

The table land which surrounds the basin is in great part made up of flat, barren and elevated lands, which, indeed, at many points, are called "barrens." On the west, Duck River has cut its narrow, deep valley through this zone of flat lands, and the same is true, in part, of the Cumberland. The whole area, including the basin, is somewhat tilted up towards the east or south-east, or, in other words, slopes gradually towards the north-west, so that the eastern portion is more elevated than the western.

If we include, in our view, the Cumberland Mountains on the east, we have a second table land, much more elevated than the first, and resting upon it; or, turning westward and including the Tennessee River, we have a low, linear basin, running along the river, and having sides or slopes, less abrupt and not as high as those of the central basin.

ART. XLII.—CLIMATE OF ITALY IN RELATION TO PULMONARY CONSUMPTION.

[DR. T. H. BURGESS is the author of a work recently published in London, on the "Climate of Italy in relation to Pulmonary Consumption, with remarks on the Influence of Foreign Climates upon Invalids." Although intended for English readers, Dr. Burgess's book relates to a subject which is full of interest to people of other countries, especially to those residing in northern climates. As regards a change of residence for consumptive patients from New England to our own southern States, the subject has been often and ably discussed in previous volumes of this Journal; and we doubt not many of our readers would be glad to know also the opinion of competent English writers respecting a removal of the same class of invalids from England to the more sunny and genial clime of Italy. The following article on this topic constitutes a review of the work

above alluded to, and is copied entire from the *Edinburgh Monthly Journal of Medical Science*.—ED.]

The object Dr. Burgess has proposed to himself in this volume, is to point out, that all those places supposed to be favorable for consumptive people in Italy, are, in point of fact, injurious; that the idea of their being beneficial is a popular delusion, and that it is much better to visit some of the sheltered places in our own country, than, with a view of seeking health, really find a grave in foreign climes. He says:

“The rapid and extensive variations of temperature observable in the Italian climate—the absolute necessity to consumptive invalids of changing their place of residence as the seasons change—the fatigue, discomfort and risk, attendant upon every such change—and the mania for sight-seeing in cold churches and galleries, which no invalid can overcome—have frequently, during my sojourn in Italy, suggested to me the following reflections:

“1. Has not nature adapted the constitution of man to his hereditary climate?

“2. Is it consistent with nature's laws and operations, that a person born in England, and attacked by consumption, can be cured by a foreign climate, in every characteristic opposite to his own?

“3. Why should a warm climate be preferred to a cold one, if the temperature be equable—the mortality from consumption being less in the latter than in the former?

“4. A revolution must take place in the system of every consumptive invalid who goes to Italy, before he can become acclimated; and how many must sink under the probationary process, from fatigue and exhaustion?

“5. If a phthisical patient derives benefit from a foreign climate, he should never leave it; for it is obvious, if he returns to his native climate, his constitution will be again changed or remodelled, and he is then rendered obnoxious to the same physical causes which originally produced his complaint.

“6. The rapid variation and extensive range of temperature peculiar to warm climates, greatly counterbalance their alleged good effects.

“7. It is more in accordance with nature's laws to believe that when *change* is necessary in cases of consumption, a modification of the climate in which the patient and his ancestors were born and reared, or, in other words, *change of air in the same climate*, by removing from one locality to another, will effect greater good than any violent transition to warm countries.”—Pp. 22–24.

In our own opinion, nothing is more difficult than for a medical man practicing in this country, to arrive at just notions concerning the sanative influence of a foreign climate in cases of pulmonary consumption. He may read books on the subject generally; he may study monographs on the especial advantages of particular places, and he may further converse with sensible men who have practiced there, without being in any degree more enlightened. As a general

rule, every local practitioner speaks highly of the superior merits of his own place of residence. He is ready to give you a list of the most extraordinary recoveries. He instances the case of Lord this, and Lady that, who on their arrival, were in the worst possible condition, and who, during their sojourn in his locality, even surprised *him* by their rapid recovery. In short, when listening to these accounts, we feel astonished that any case of phthisis should die, did not all such practitioners, in reply to a straight-forward question, acknowledge that deaths, notwithstanding, were very common, and that, after all, these remarkable cases were the exception and not the rule. The real questions to be answered, in reference to the sanative influence of climate, are—1st. What is the proportion of cases in which an arrest of the disease takes place, as determined by a strict diagnosis, the stage of the disorder, and the age and general strength of the patient? 2d. Are such arrests more frequent in foreign countries than they are at home? So far as we are aware, no series of facts exists capable of satisfying us on these points. On the other hand, is it not certain that if a phthical person recovers his bodily strength in Madeira or Italy, the benefit is at once ascribed to the influence of climate; whereas, if the same thing happens at home, the case is considered one of bronchitis, or, at all events, its phthical character is denied? Yet it has of late become sufficiently evident, that, with proper care and treatment, phthisis may be arrested in this country much more frequently than was formerly supposed; and we have no reason to believe that such arrestment is more common in Madeira, Egypt, or Italy, than it is in Edinburgh or London. It may then fairly be asked—whether the practice which has so long prevailed, of sending consumptive patients abroad, is beneficial or not? Dr. Burgess unhesitatingly pronounces in the negative, and argues as follows:

“If we contemplate the climate theory through the appropriate medium of the natural history of creation, we shall find that the argument is also in our favor. We may seek in vain, along the entire range of organized existence, for an example of diseased animals being benefited by removal from a warm to a cold, or from a cold to a warm country. There appears nothing in the book of nature so violently inconsistent. The fishes which inhabit the waters of the British Islands, will not thrive in the Arctic seas, nor those of the latter in the ocean of the tropics. The birds of the primeval forests of America generally die in this country, unless reared like hot-house plants; and so with the wild animals which live and flourish in the jungles of Asia, or the scorching deserts of Africa.

“Man, although endowed in a remarkable degree, and more so than any other animal, with the faculty of enduring such unnatural transitions, nevertheless becomes sensible of their injurious results. For familiar illustrations of this influence, we have only to look to the broken down constitutions of our India officers, or to the emaciated frame of the shivering Hindoo who sweeps the crossings of the streets of London. The child of the European, although

born in India, must be sent home in early life to the climate of his ancestors, or to one closely resembling it, in order to escape incurable disease, if not premature death. Again, the offspring of Asiatics, born in this country, pine and dwindle into one or other of the twin cachexiæ, scrofula and consumption—and if the individual survives, lives in a state of passive existence, stunted in growth, and incapable of enduring fatigue. If such extreme changes of climate prove obnoxious to the health of individuals having naturally a sound constitution, how are we to expect persons in a state of organic disease, to be thereby benefited? In fact, view the subject in whatever way we may, we must eventually arrive at the natural and rational conclusion, that nature has adapted the constitution of man to the climate of his ancestors. The accident of birth does not constitute the title to any given climate. The natural climate of man is that in which not only he himself was born, but likewise his blood relations for several generations. This is his natural climate, as well in health as when his constitution is broken down by positive disease, or unhinged by long continued neglect of the common rules of hygiene.

“Change of air in his own climate, or removal to one nearly approaching to it, is the natural indication, and will effect whatever good climate can effect in consumption.”—Pp. 19–21.

Our own experience is, on the whole, hostile to the propriety of sending phthisical patients abroad in search of health. We have now met with many consumptive individuals who, so long as they remained at home, continued in a satisfactory condition, enjoyed life, and carried on their usual occupations in comfort; but who, seized with an unconquerable desire of getting completely well, through the agency of a warm climate, have gone to Italy, and died most miserably. Such cases have been so frequent with us, as to have given rise to a feeling of great skepticism as to the utility of expatriating such persons—a feeling which would have become absolute, were it not counterbalanced by a conviction engendered by foreign travel, and dependent on what may be called personal sensation, rather than actual experience of any beneficial result obtained by others. We allude to that exhilarating feeling which the traveler experiences in the south of France, or the borders of the Mediterranean, caused by the clear atmosphere, balmy air, and luxuriant landscape. He who has felt that delightful sensation, and paid attention to its influence on his own bodily powers, will not easily abandon the idea that such influence, if rightly directed to the relief of certain morbid conditions, must have some effect. We believe that such a feeling insensibly constitutes the real basis of all our belief concerning the good effects of climate; and as we still think, notwithstanding all Dr. Burgess has said, that, in certain cases, it is really beneficial, it may be worth while to enquire why it often fails, and why it sometimes succeeds.

Supposing, then, that residence or travel in certain foreign countries may be beneficial in particular cases—and the chief arguments in its favor are the sensations to which we have alluded—it cannot be denied that many fallacies are liable to enter into our reasonings.

For instance, it does not follow that the same elastic feeling experienced by a healthy, vigorous individual on the mountain-side, on the sea-shore, or in the beautiful valley, should be felt by a debilitated, worn-out person in a similar situation. Nor is it reasonable to suppose that the qualities of mind, power of exertion, and consciousness of bodily strength—all of which are elements in the production of the feeling alluded to—should be alike in two cases. Hence, while some persons may be benefited, and the nutritive powers stimulated under the circumstances, others will feel languor, depression of spirits, or increased fatigue, and find themselves much worse. The difficulty, therefore, is to discriminate between these two classes of persons—a difficulty which defies all general rules, dependent as it is not only on the stage of the disease and bodily strength of the individual at the time, but also on his peculiar constitution, habits, general excitability, powers of imagination, and cultivation of mind. Hence, before sending patients abroad, all these points must be anxiously considered ; and even then the whole will resolve itself into the fact, which can only be determined by experiment, whether, upon actual trial, they feel better or worse.

We believe, however, that in most cases the change is at first beneficial, and that it would be to a considerable extent permanent, were it not for another fallacy which extensively prevails. We allude to the idea that the climate itself has a sanative tendency, and that the breathing this or that air is like taking so much medicine, and ought to do good *per se*. Now it should be considered, that the best climate is only useful as a means of taking exercise, and promoting the nutritive functions, without exposure to those drawbacks which are more or less common at home. It is by regarding exercise as necessary to securing active digestion that its importance as a therapeutic agent becomes obvious in phthisis, and any locality which will enable the sensitive invalid to go out daily on foot, horseback, or in a carriage, without the chance of meeting cold winds or showers of rain, must possess an advantage over one where these occurrences are common. Now all accounts agree in representing Madeira and some other places, as more favored in this respect than even the best localities in England—and if so, they may, in the sense referred to, be more beneficial as places of residence.

In searching for such benefits in a foreign climate, the patient has to sacrifice the occupations he may be accustomed to at home, and the society of his friends. But if this can be done without inconvenience, and without causing mental depression or a sense of *ennui*, it may even be advantageous. Mental impressions must not be overlooked. Then he will experience a great difference between the comforts of an English residence and those in a foreign house, which, to the healthy traveler, are often annoying, and to the invalid are injurious. In Rome, Dr. Burgess says the streets are built to exclude, as much as possible, the rays of the sun, and in winter are as damp and cold as rain and frost can make them. And then he adds, "What a difference between the warm carpet, the snug elbow chair, and the

blazing coal fire of an English winter evening, and the stone staircases, marble floors, and starving casements of an Italian house !”

It is well pointed out by Dr. Burgess, that those who go to the large Italian cities are exposed to other dangers, connected with the desire of seeing celebrated places, works of art, churches, vaults, &c., which induce great bodily fatigue, and often chill the body by long exposure to damp air, or from standing on cold, marble floors. He says :

“It has often occurred to me, while observing the habits of consumptive patients when in Italy, that a description of the *climate*, of old ruins, cold churches, empty palaces, long picture galleries, and other places favorable for the collection of stagnant air, but where invalids notoriously pass a great portion of their time, would be much more useful and appropriate than any elaborate account of the external or natural climate of the country which the most minute and careful observation could afford. It matters little how pure the atmosphere may be in reality, if the air the patient breathes for so many hours each day, is impregnated with noxious exhalations, as it must be, in the majority of instances, while he is admiring the bronzes, pictures, and statues of the cathedral, or trying to decipher half-worn inscriptions on the mouldering walls of some ruin or dungeon.

“The attractions of the basilica of Saint Mark, a church which has not its parallel in the world, are certainly of no ordinary kind. The mosaics, sculptures, basso-relievos, and arabesques, with which it is profusely ornamented, together with the gilded arched roofs, the pavement of jasper and porphyry, the five hundred columns of black, white and variegated marble, of bronze, alabaster, vert-antique and serpentine, are irresistible to the foreign invalid, who soon finds way thither, and passes hours fatiguing his frame, gazing at the marvels of the building, standing on its cold and sunken floor ; for the piles underneath have given way in many places, and hence he breathes an air damp and impure.

“The Ducal Palace, close by, has also various attractions, and I doubt whether the master-pieces of the greatest painters Venice has produced, with which the ceilings and walls of the different apartments are adorned, are so eagerly sought after as the Piombi and the Pozzi, the latter being the dungeon cells in the vaults of the Palace, over which the boats in the canal pass, and with whose history so many tales of horror are connected. These horrible dens are still dismal and damp, although the walls are boarded to prevent the humidity from penetrating.”—Pp. 106–107.

“In the renowned capital of Tuscany, wandering amongst its splendid, but cold and damp churches, its palaces and picture galleries, many an English invalid annually hastens his end : and it not unfrequently happens here, as in other cities of the south, that the places most frequented, and possessing the, greatest attractions are of circumscribed dimensions and badly ventilated. For instance, visit the far-famed *Tribuna*, of an afternoon in autumn, and there you

will find, in a small octagon chamber, like a moderate-sized boudoir, containing the most valuable gems of antiquity, and some of the finest paintings in existence, a crowd of eager spectators, even including invalids, jostling each other from want of room, gazing for hours together upon the immortal works of art around, whilst breathing all the time a heated, confined and impure atmosphere. An observer will not remain long before his attention is arrested by the ominous short, dry, jerking cough, and on looking round he is sure to see the same stereotyped picture of the 'English disease,' so painfully familiar to travelers throughout Italy, supported on the arm of an attendant, staring at the marble statue 'that enchants the world,' which often seems more alive than the gazing invalid."—Pp. 134-135.

Again he points out that in Rome :

"The rank and luxuriant grass, weeds and wild flowers—the Flora of the Coliseum—which grow in profusion all over the amphitheatre, and the moist and stagnant air of the place, combine in forming a noxious atmosphere, the evil effects of which are soon experienced by strangers, whether invalid or robust, who pass any time there. I have frequently observed invalids wandering about this vast ruin for hours, and with the aid of a guide climbing over the different stages of the mouldering walls to catch the effect produced by the variety of views which are renewed at each arcade. At night, and by moonlight, is the favorite time for visiting the Coliseum, in order to see the effect of light and shade, with the endless details of ruins thus shown. No consumptive patient who is able to drive to the spot, and to crawl over the walls, ever omits such moonlight visits! One might suppose that an individual in bad health, would choose a more cheerful scene—at least one less significant of his own condition; but it may be, perhaps, that ruins console each other."—Pp. 175-176.

Another evil of large continental cities consists in the attractions of fashion, so that the young can seldom resist the late evening parties, the dance, or public amusements, when flushed with excitement or exertion, they return to their homes late at night, exposed to the chill air, the injurious effect of which is augmented by the previous heat and foul air of crowded assemblies. All such irregularities, and every kind of over-fatigue, are more than enough to counterbalance the supposed good effects of climate. Hence, places of quietude, offering no temptations to gaiety, and possessing only natural advantages of scenery and the gentle stimulus of a clear atmosphere, mild temperature, and cheerful society, are the best.

Another fallacy is the idea that warmth is the agent which, in such cases, does good; and people talk of a warm climate as synonymous with a healthy climate in such cases. But unaccustomed warmth is most relaxing, and tends, instead of checking, to occasion increased development of the tubercular exudation. Nothing is more common in this country than to observe how phthisical patients get worse on the approach of sultry weather in summer, and how comparatively better they are in winter, so long as they avoid exposure to cold winds. In fact, it is not a warm climate which is sought for

by the invalid, but a temperate climate during the winter, in a more southern country than England. As summer approaches, many parts of the British Isles are infinitely preferable.

It follows, from all the information we have been able to collect, that that climate is best which will enable the phthisical patient to pass a few hours every day in the open air, without exposure to cold or vicissitudes of temperature on the one hand, or excessive heat on the other. Wherever such a favored locality may be found during the winter months, its advantages should be considered as dependent on exercise, and on the stimulus given to the nutritive functions, rather than to its influence on the lungs directly. It is a matter also of great importance to remember, that the comforts of home, a well arranged diet, general hygienic rules, and a proper treatment, are as necessary in Madeira, Italy, Spain or Egypt, as they are in Edinburgh. Lastly, we will venture to say, that the good effects of a foreign climate have been greatly exaggerated; and to all of our readers who feel interested in the matter, we cannot do better in proof of it than recommend the perusal of Dr. Burgess' well written and agreeable volume.—*Boston Med. and Surg. Journal*.

The remarks of the Reviewer of Dr. Burgess's work, in reference to the pilgrimages of consumptive patients to Italy and other regions, supposed to be favorable to such cases, are certainly based upon sound, practical views. The mania so prevalent among that class of invalids, for visiting distant parts of the world, was originally instigated and rendered fashionable by the erroneous opinions of the medical profession; and it is the province as well as the duty of medical men, to disabuse the public mind of the delusion which they have been chiefly instrumental in originating.

It is difficult to estimate the influence of climate in moulding the physical organization, and modifying its susceptibilities to disease. Organic life is a struggle from the cradle to the grave, to accommodate the complex organic movements to climatic influences constantly in operation. The human constitution is, in fact, congenitally stereotyped by the peculiarities of the hereditary climate.

The extreme variableness of temperature common to warm climates, is of itself a valid argument against the propriety of removing patients from high to low latitudes. None but those who have experienced the change, can form a just conception of the languor and discomfort felt by dyspeptics upon their first entrance into a tropical climate. The depression and ennui in some instances are horrible; this was our experience, at least, and we presume the feelings of the consumptive invalid do not vary materially from those of the inveterate dyspeptic.

The rapid transition of a company of emigrants by steamship from

New York to the Isthmus of Panama, afforded a striking demonstration of the evil effects of a hot climate upon a northern constitution. The sudden debility experienced, prompted them to indulge freely in eating and drinking. The organic instincts, which in their hereditary climate were usually a safe criterion, in this instance led them into excessive eating and drinking, aggravating the distressing sensation of debility, and resulting not unfrequently in bowel affections, if not febrile attacks.

A *mild* climate is certainly more congenial to the consumptive habit, and more likely to procrastinate the crisis, if not to favor permanent restoration to health. But as Dr. Burgess very justly remarks, "The rapid variations and extensive range of temperature peculiar to warm climates greatly counterbalance their alleged good effects." And it is but reasonable to suppose that every condition or circumstance that disturbs the circulation of the blood, is more or less hazardous to the safety of a consumptive patient ; and we know that the first effect of a sudden translation from a cold to a warm climate, is to change the relative *vascular habits* of the different organs ; in other words, a revolution must take place in the system, before the individual can become acclimated.

The late Dr. Armstrong, one of the shrewdest observers of his day, entertained similar views on this point with Dr. Burgess.

"With regard to climate, I thought favorably of a change some time ago ; but so many appalling facts have come to my knowledge that I have been induced to change my mind. If consumption be confirmed, it is hazardous to leave home. If the patient be in threatened consumption, to remove him from his friends is to wrench him from all the affections which have held him from the time of his birth ; and no man can bear this without receiving a shock which may be exceedingly injurious. Besides which, the fatigue of travelling, the risk of cold, the worry and bustle of inns, the diet, which becomes in some measure dependent upon chance, on the road, the danger of damp beds, and the necessity of changing the abode at different seasons of the year, must all be taken into account : they more than counterbalance the good which might result from a less variable climate ; and many persons who have left this country in a state of threatened consumption, have returned with confirmed phthisis. If an individual of a delicate constitution, with a slight cough and a slow pulse, should pass to a warmer climate, he can scarcely ever return with safety to this. As to confirmed consumption, removal is quite out of the question, it is a hopeless disease, and change of climate only hastens the patient to his grave."

Notwithstanding all that has been said and written in favor of the climate of Italy and the south of France, Bennoiston de Chatean-

neuf "has calculated that of one thousand soldiers dying in the north of France, eighty five were tuberculous; while of an equal number in the central parts and the south, seventy-three and eighty two were thus affected. In Marseilles, *one fourth* of the population is carried off by phthisis. It is common in the West India Islands, in Madeira, in Rio Janeiro, in New Zealand, Naples, (where according to Journet, *three deaths in every seven* result from Phthisis,) in Malta, Spain, Portugal, Calcutta and Madras." It may be said, and perhaps with truth, that the fearful ratio of mortality from phthisis in some of these places is considerably increased by the large number of consumptive patients from other countries ; but after making all due allowances, we think the difference is rather in favor of the United States, against these reputed anti-consumptive climates; and all things considered, that it is decidedly safer for the consumptive invalid to risk the probabilities of recovery in *his own* climate. If Emphysema has a tendency to exclude tuberculosis, as Wunderlich thinks, and if Rokitsansky, (whose "pathological statistics" in tubercular diseases, are unequalled,) be correct in attaching "great importance to an increased *venosity* of the blood, (as an antagonistic condition to the formation of tubercle,) from whatever influence that may interfere directly or indirectly with oxygenation of the blood, either by diminishing the *capacity of the chest* or *hindering the expansion* of the lungs, or by deranging the pulmonary circulation of the blood, or by impeding the free access of air thereunto, as in cases of spinal deformity, narrowing the chest, *abdominal tumor* encroaching upward, and causing *dyspnœa*, cyanosis maintaining *deficient aeration* of blood," &c., and if, as Prof. Bennett believes, a bad appetite, faulty nutrition, the deficiency of fatty matters in the blood, usually usher in phthisis pulmonalis, we are inclined with Wunderlich and others to the belief, that there is an antagonism between intermittent fever and phthisis, and hence, that the low malarious regions in the middle latitudes of the United States, might afford a protection against this disease, and prove to be a safer habitation for the consumptive invalid, than Italy or Havana.

Select for instance the low, marshy, malarial region lying along Nansemond river, Va., some thirty miles from Norfolk, where, by the by, a death from phthisis is an exceeding rare event, (if indeed such a thing has ever happened.) Here malarial intermittent prevails in unadulterated purity. Many persons having tertian ague twelve months in the year, without suffering any greater *inconvenience* than a tumid abdomen, asthmatic breathing, a *tallow face*, and a ravenous

appetite for biscuit and butter, fresh oysters and soft crabs. No description of tonic is so certain to excite a voracious appetite and keen relish for rich animal diet, as an *ague*; and if deficient or imperfect oxygenation of the blood promotes antagonism to tuberculosis, this indication is fulfilled, as the *tallow faces* of the inhabitants furnish the most satisfactory *prima facie* evidence. If there be any prophylactic or therapeutic virtue in *abdominal tumors*, the consumptive patient is sure to have the full benefit of this mode of protection from the *upward* pressure of an "ague cake," if not from ascites.

But as Dr. Burgess suggest "that a modification of the climate, in which the patient or his ancestors were born and reared, or in other words, *change of air in the same climate*, by removing from one locality to another more appropriate to the patient's condition, will effect greater good than any violent transition to warm countries," the question very naturally suggests itself to us, whether there is a modification of climate to be found within the limits of the United States, to which we might with safety advise consumptive invalids from the different States to resort, with a reasonable hope of improvement.

Perhaps no country upon earth of the same extent, embraces so great a diversity of climate and scenery, as the region lying between the parallels of 35 and 40 degrees, N. L., extending from the Great Salt Lake to the Pacific ocean. It is in truth a meteorological anomaly—a climax of scenographical wonders. In the valleys along the American and Yuba rivers, among the foot hills of the Sierra Nevada, the thermometer, as Dr. Riggs of Louisiana informed us, ranges from 110 to 130, F., during the hottest part of the day, while the nights are so cold, that it is difficult to maintain a comfortable temperature under four or five heavy blankets: During the rainy season, or winter, snow falls to a great depth, while at Stockton about seventy-five miles south, there is perpetual spring and summer.

The valley of Santa Clara lies along the south-western and southern extremity of the magnificent bay of San Francisco, about $37\frac{1}{2}$ deg., N. L.; an unbroken range of lofty mountain, near 3000 feet high, bounds the valley on the west, and another range of about the same elevation, rising abruptly from the plain, separates it from the valley of the San Joaquin river on the east. The two ranges of mountain approach at an angle of about 35 deg., some ten or fifteen miles south of the Pueblo of San Jose, through which there is a pass into a southern valley in which the Pueblo of Los Angeles is situated. The valley of Santa Clara is perfectly level from mountain to mountain, and from the bay, the surface of which is nearly on a spirit-level

with the plane of the valley, to the south pass towards Los Angeles, and is very sparsely timbered with a dwarfish species of live oak, which at a short distance might be mistaken for an overgrown apple tree; the whole valley during the dry season, resembles more a newly harvested oat field, in an orchard of mammoth apple trees, than an uncultivated waste. The magnificent bay of San Francisco in full view on the north, and the two ranges of lofty mountain on the east and west, covered from the plain to their very summits with the wild oat, and dotted with the evergreen oak—present the most beautiful and imposing landscape we have ever looked upon: There is a grandeur and sublimity in the panorama of this region, which would task the highest descriptive powers, even of that accomplished and graphic sketcher, the editor of the Boston M. & S. Journal.

The climate of this valley is surpassingly delightful, and it is this feature, that seems to us, to recommend the Pueblo of San Jose as a suitable residence, and place of resort for consumptive invalids from the United States. During our brief residence in San Jose, we did not have an opportunity to observe the thermometer, but it is stated by those who have noted, that the temperature ranges from 60 to 75 deg. during the twenty-four hours throughout the dry season; and there is said to be but a slight variation from these figures during the rainy season. From sunrise until 1 o'clock, P. M., the atmosphere is perfectly clear; about 1 o'clock, as the stratum of atmosphere in contact with the surface of the plain is rarefied to a certain point by the noon-day sun, a cooler body of air is invited from off the bay, and a gentle breeze continues until near 5 o'clock. The evenings are calm, pleasant and bracing, and it is quite comfortable to sit by a cheerful fire, and sleep under a blanket; owing to the dryness of the atmosphere, however, a morning walk before sunrise is delightfully pleasant, even to the dyspeptic invalid. The meteorological record of to-day, will answer with little variation for every other day throughout the season. We can predict with almost infallible certainty, that "to-morrow will be as to-day," that the morning will be clear and pleasant, that the breeze will blow from off the bay from 1 to 5 P. M., that the nights will be cool and bracing, and a feather bed and blanket comfortable.

The rainy season, which is coincident with the dry season within the tropics, resembles the month of May in the same latitude in the Mississippi valley. Rains fall sometimes every day; often every second or third day, the mornings being usually bright and clear, to a degree which no one can fully appreciate, who has not visited the

Pacific coast. The temperature varies but slightly from that of the dry season. The valley even to the top of the mountain, is clothed with a variety of wild flowers and oats ; and if there be any difference in the atmosphere, the rainy season is more pleasant than the summer, and to many persons much more agreeable.

Here then, is a climate uniformly mild throughout the year ; neither cold nor hot, exempt from the sudden and extreme vicissitudes of temperature peculiar to Italy and tropical regions ; occupying a latitude, too, congenial to the inhabitants of all the States, north and south ; a sort of middle ground, to which the invalid from Maine, equally with the one from Florida, can with safety resort.

No one can form a just idea of the superiority of the climate of Santa Clara over that of Cuba, who has not visited the two places. We have a vivid recollection of the delightful bracing atmosphere of San Jose, compared with the *moist* enervating climate of Havana, having been transferred from the one to the other, within the space of a few weeks.

At present, and perhaps for some years to come, the advantages of the climate of Santa Clara, will not be appreciated by the consumptive invalid from the older States, owing to the difficulties and hazard of the route by the Isthmus, and the danger incident to a sudden transition from the damp and sultry regions within the tropics, to the chilly atmosphere off the coast of California. But when a great national railway shall have been constructed from the Mississippi valley to the Pacific, we believe that this valley is destined to become celebrated as the great resort for consumptive patients, from all parts of the United States. Instead of leaving his native land, and suffering the horrors of a long, if not everlasting banishment from home, relatives and friends ; the invalid, in going to Santa Clara, is only seeking a *change* of air in *his own* climate, or one very nearly approaching it, where he will be surrounded, if not by relatives, at least by his fellow-citizens ; and from whence he can communicate by telegraph with his family and friends, and feel that he is at home—if not under his own roof, at least beneath the “stars and stripes” of his glorious country. But should the insatiable enemy of the lovely and noble of our race, refuse to release its victim, and death be inevitable, he can return in a few hours to his home and kindred, and be “gathered unto his fathers,” in his native land.

JOHN W. KING.

ART. XLIII.—A CASE OF HEMORRHAGE FROM THE LIVER, OCCURRING FROM PARAPLEGIA.

By B. MONROE, M. D., Frankfort, Ky.

During the latter part of the year 1850, and part of the year 1851, embracing a period of nine or ten months, Mrs. M., the subject of this article, was under the treatment of Dr. D., of Lexington, and confined for nine months, by his injunction, to the recumbent posture, for the cure of disease of the spine ; but having, as he supposed, been relieved, was allowed to resume her former usual habits, taking reasonable care of herself, by which she was assured she would eventually become entirely free of all its consequences. She continued comparatively comfortable, and improving in strength and general health, as she supposed, being able to ride on horseback and in buggies, and feeling only occasionally slight pain, till about the month of July, 1852, when she was induced to consult the eminent Dr. James Bush, of Lexington, who, upon examination, pronounced the spine in the cervical region slightly diseased, but perhaps would not give her any trouble, if she continued her then cautious habits. During the three or four weeks that followed, she frequently spoke of her good health and general rapid improvement, till Thursday, the 27th of August, on going to bed at her usual hour, she complained of a sensation of extreme fatigue and lassitude, so oppressive, in fact, as to prevent, instead of inducing sleep ; and requested that her limbs should be rubbed, which was continued until nearly three o'clock in the morning, before she could sleep ; at which time, she sank, as was supposed, into a sweet sleep, and consequently no attempt was made to arouse her, till long after breakfast on the following morning, when it was found that she was in a comatose state, from which she could not be aroused to consciousness. Medical aid was immediately summoned. The countenance was found natural, no turgescence or fullness ; the palpebræ closed as in sleep ; and on being raised, showed no dilation or contraction of the pupil ; no injection of conjunctiva, pulse about a hundred, and full, when first examined, but in a few minutes was found too fast to count, and so continued to vary to every intermediate rate of rapidity and volume, in almost every ten minutes ; the breathing was equally variant, sometimes deep, full, stertorous and slow, at others short, quick, rapid and imperfect ; the pectoral muscles seeming not to participate in the inspiratory or expira-

tory effort. There was no manifest symptom of pain, save occasionally when an effort was made by anxious friends to elicit some slight evidence of consciousness, which was apt to induce a groaning and frowning, which, in fact, was the only evidence given at any time, of any degree of consciousness or sensation. There seemed an entire suspension of the action of the senses and volition.

Nervous stimulants were exhibited, cataplasms to the extremities, a gentle laxative, with a view to emptying the alimentary canal, which produced free alvine involuntary evacuations, and were followed by abundant discharges of dark, foetid, coagulated blood, presenting to the eye no other character, but possessing a strong, bilious odor. The discharges continued to pass, during her illness, at intervals of four or five hours. She would, at intervals, appear to revive, open her eyes, look around, her countenance being perfectly natural and tranquil, and in this condition she would remain for ten or fifteen minutes, then sink again in ten minutes, the pulse becoming rapid, fluttering, scarcely perceptible; breathing short, irregular; the countenance shrunken and pale, and seeming in every respect, in *articulo mortis*; but would again revive to a medium condition between the two just described; and thus did her condition vacillate until the following Monday at noon, the third day, or about sixty-eight hours after the attack, she expired in one of the sinking stages, as above described.

Now, what is the pathology of this case? Which link of the chain of symptoms is primary and which secondary? It is not catalepsy, nor is it apoplexy; resembling both in some of its features, yet there are other pathognomic symptoms of each of those diseases entirely absent, which fact militates so strongly against the opinion, as to force us to abandon it, and seek in the laws of physiology and dynamics, a more satisfactory solution of the *cause* of the symptoms. Was it not clearly a case of paraplegia, (as seems to my mind, though not to others,) symptomatic of disease of the nerves at their centres, or by blood or serum effused from the spinal vessels upon the cord, its cardiac, intercostal and pulmonic branches, paralyzing their action in some degree, and thus embarrassing the action of the heart, whereby it was unable to relieve itself of the blood brought to it; the *vena cava ascendens* could not empty itself upon the already nearly drowned heart. (Proven by the pulse.) The hepatic veins being consequently subjected to the same engorgements, their smaller branches were ruptured, their contents poured into the hepatic duct, thence conveyed to the bowels, and passed off. Even after death, large quanti-

ties of this blood passed from the bowels, and during the handling of the body by the friends preparatory to interment, large quantities were poured from the stomach by the mouth, as *also* every thing that had been taken upon the stomach during the attack, showing almost, if not complete, paralysis of the vital functions of the stomach. From the same cause, no doubt, that so much affected the functions of respiration and circulation, I omitted to mention in the catalogue of symptoms, a very important one, viz : great difficulty of deglutition ; in fact the power was not present at all, and every thing was poured into the stomach, the muscles concerned appearing entirely passive. Such is the brief, though, perhaps, not very concise history of a case presenting to me some anomalies and inexplicabilities.

ART. XLIV.—TYPHOID FEVER.

By R. L. SCRUGGS, M. D., Shreveport, La.

As to the agents or causes which I suppose to be operative in the production of this class of fevers, I have only to remark, as heretofore, that as the disease prevails more extensively in those years in which we have the fewest number of intermittent and remittent fevers, and as it is not controllable by the great anti-periodic agent, sulphate of quinine, I therefore conclude, that it is a disease *sui generis*, and produced by a state of the atmosphere the very reverse of that which develops periodic fevers. I am further led to this view of the subject, from the fact, that no case of typhoid fever has ever been observed, so far as I know, in a very recently settled country, but makes its appearance after the country has been settled for some time, and become in other respects rather healthy.

So far as I have been able to observe, no age, color or sex, is altogether exempt from the disease, although it would appear that persons from eight to forty years of age are more subject to it than those older or younger.

The disease prevailed more extensively in Tennessee in 1847, and in this state in 1851, than in any years since I commenced the practice, and these two years were considered, in the regions in which I practiced, remarkably healthy.

My observations of the fevers of Tennessee date back no farther than the spring of 1845, at which time I commenced the practice of

medicine at Germantown. But little was known of typhoid fever in that part of the state at the time above referred to, and I presume that but few cases had occurred there previously. I treated that year seventeen cases of the disease, and met with it, more or less, every year afterwards, until I left the state, January 1st, 1850. The fevers of that country, previously to 1845, were almost exclusively, except the exanthematous, of malarious origin, and although often extremely malignant in their character, (being frequently accompanied by congestion of the brain, lungs, and portal viscera,) yet the physicians had learned to treat them with great confidence and success, relying, of course, chiefly upon the liberal administration of sulphate of quinine. Great, therefore, was their surprise and consternation, when they found that they had to deal with a fever, (often very mild at the beginning,) which not only would not yield to the quinine treatment, but was rendered altogether unmanageable by it, when used to any considerable extent. This panic quickly subsided, however, when they found that the disease could be conducted slowly to a favorable termination, although it could not be suddenly arrested by quinine, or any other article or plan of treatment that could be devised.

The only writers at present of any note, with whom I am acquainted, who persist in the opinion that typhoid fever can be cut short by large doses of quinine, are Dr. Dundas of England, and my much esteemed friend Dr. E. D. Fenner, of New Orleans. I cannot help thinking that these gentlemen have been mistaken in the character of the cases treated by them successfully with large doses of quinine. Typhoid fever is strictly a disease of rural districts, and although a case may sometimes occur in the large cities, it is, I apprehend, extremely liable to be confounded with proper typhus or malarial remittent, to neither of which class of diseases does it belong, nor is the treatment proper for them, at all applicable to the true typhoid affection.

If every case of typhoid fever treated in the Charity Hospital in New Orleans during the year, should prove fatal, still the bill of mortality, in the aggregate, would be small, the number of cases being only a small fraction of the whole number of fever cases relieved annually in that splendid charity.

I have treated the disease every month in the year, but much the largest number of cases have occurred between July and January, the latter half of the year.

I know of but two classes of idiopathic fevers in our country—one

miasmatic or malarial, peculiarly under the control of quinine ; the other *typhoid*, the very antipode of the first, not controllable by quinine, nor to be suddenly arrested by any course of medication known to the profession. Many of these latter cases being very mild and disposed to terminate in health, in from five to seven or nine days, are believed not to belong to the typhoid ; but having had repeated opportunities of seeing these mild cases converted into the gravest and most severe forms of the disease, by drastic purges, quinine, calomel and opium, I am satisfied that they belong to the family of typhoid fevers.

With regard to the contagiousness of typhoid fever, I have only to remark that I have seen no evidence of it myself, although I am not prepared to deny to it that property. If it is contagious at all, it must be mildly so, and require very favorable circumstances to enable it to be thus communicated. I must pass over the symptoms of this fever, with all its varieties, for want of time.

As to any alteration or modification in the treatment, I made, in a recent communication to Dr. Fenner, of New Orleans, the following remarks : “ My treatment of this fever, adopted in Tennessee and pursued in this state for the last three years, has been so entirely successful, that I have had but little occasion to alter or modify it. If I have made any alteration at all, it consists in giving *less* medicine, making a little freer use of ice, and relying more upon the recuperative energies of nature. Additional experience has confirmed the high opinion I formerly entertained of the peculiar virtues of the oil of turpentine, in the ulcerated stage of the glands of Peyer, and induced me to reject almost every other stimulant. I use opiates, but never in the beginning, nor for many days, and then with the greatest possible caution, having had repeated opportunities of witnessing their ill effects upon the brain in this fever. Brandy and wine I very rarely use at all, although in extreme cases, I sometimes find them beneficial, along with beef tea, animal jellies, &c.

With regard to the pathological phenomena peculiar to this disease, I have nothing to remark, never having made a *post mortem* examination. Having lost only five patients out of about two hundred, I have never had an opportunity of examining a subject, dead of this disease.

ART. XLV.—TYPHOID FEVER.

By J. A. LONG, M. D., Athens, Tenn.

Typhoid Fever has been quite prevalent in this section, since I commenced the practice of medicine in the spring of 1844. The first case I saw of typhoid fever, was in the month of August of '44 ; it was a well marked case, presenting all the characteristic symptoms of the disease ; I recognized it, and called it *typhoid fever*, the first time *typhoid* was ever applied to fever in this county. I speak from the fact, that I had long and frequent conversations upon the subject with all the leading physicians of the county. I myself, had never read or heard of such a fever, until I met with Prof. Bartlett's work on *typhoid* and *typhus* fevers, at Lexington Ky., and also heard him lecture upon that subject. The disease was no doubt seen and known previous to that time, under the names of *winter*, *nervous*, and *typhus* fever, though it prevailed less extensively than at present. The rose colored spots in this fever, I have seen, and they have been noted by the friends in about one half of the cases, though I am persuaded they occur in a much larger proportion, as they were not always diligently sought for, from the fact of being called in late, and in many cases the friends had observed them, but they had faded ; these facts made me more careless, even in cases where they had not been spoken of, if the second week had passed, which was frequently the case. *Sudamina* I have seen in nearly all of my grave cases ; I think they occur much less frequently than the *rose spots*, but are more likely to be seen, as they most frequently occur on the neck, front and superior portions of the chest. *Desquamation* I have seldom seen, probably in not more than one case in the hundred, and *sudamina* in not more than one-fourth or one-fifth of the whole of my cases. The cause or causes that give rise to this fever in this section, are as yet wholly unknown. Its spread is now, beyond all doubt, favored by contagion ; it appears to be a good deal influenced by age, rarely attacking those over thirty or under ten : in about three hundred cases, four-fifths of the whole were between the ages of fifteen and twenty-two : I cannot say at present whether the disease is influenced by color or not. It prevails very much in this section in neighborhoods, and in families. The proportional mortality has been fearfully great, as it has been treated by every physician in the county, (but myself,) upon the *mercurial* plan, and in some neighborhoods three-

fourths of the cases died ; in one instance seven cases in one family and six deaths, and the seventh both jaws entirely destroyed by mercury ; in another neighborhood, and I have it from as responsible authority as our county affords, that in thirty cases thirty deaths took place, all upon the mercurial plan, and salivation took place in none. This fearful mortality drove the people to domestic treatment, simple teas, castor oil, light diet, and await the result ; under such treatment, a large majority recovered. The disease has been much more common and severe in cold than warm weather. I have never seen the same person suffer from typhoid fever more than once. I have never made any post mortem examination. Typhoid fever has been lighter in this section the past winter than it has been since '45, though what few cases have been seen were of a grave form. The past fall and winter has been remarkable for a variety of fever distinguished by Dr. McNutt as *pseudo*-typhoid, but what is in reality the old bilious form of fever with a *typhoid type*, as is the case in this locality, (since the prevalence of typhoid fever,) with every form of acute disease ; they partake more of the typhoid type, and less of the inflammatory, consequently demand less active treatment. I do not use the lancet half so often at present as in former years, and in fact it is necessary to be more cautious in the use of all therapeutic agents, to prevent early and sometimes irreparable prostration. See *Southern Medical and Surgical Journal*, published at Augusta, Sept. No., 1852, for a further exposition of my views upon this subject.

January 24th, 1853.

ART. XLVI.--LUNG CALCULI.

By JOHN H. CARRIGER, M. D., of Columbus, Georgia.

March 6th, 1852.—We were called upon to-day to make a post mortem examination of the body of Millington Collins, of Claibourn county, Tenn., aged between fifty and sixty, who expired shortly after receiving a blow on the right side of the neck, on the preceding day.

The deceased, after receiving the blow, got into a great rage, and was anxious for a fight, but being prevented from this, and in a state of inebriation, he at last lay down upon the ground and was not noticed any more, until near an hour afterwards, when he was found to be lifeless.

Post Mortem.—Thirty hours after death, some ecchymosis on the right side of the neck, rather behind, and near the middle of the sternocleido mastoid muscle, but not more than was found on other parts of the body, where no violence had been inflicted.

The whole surface of the body had a livid or purplish blush, not regular however, but rather in spots and blotches, in many places almost simulating scarlatina, being rather darker.

On opening the chest, the right side was found to contain about four pints, perhaps more, of a yellowish serum, and the lower part of the right lung, full of miliary tubercles, and some small ossific deposits, very friable and hepatized, having the appearance of recent inflammation. About one half of the right lung, or perhaps rather more, and the superior part, entirely healthy. No pleuritic adhesions on the right side.

Left lung completely disorganized, full of miliary tubercles and ossific deposits, varying in size from that of the end of the fore-finger, to that of a millet seed. Lung soft and friable, breaking up readily between the fingers, and only a very small portion at the apex, pervious to air.

The heart hypertrophied—ossific deposits in the valves of the pulmonary artery, and the aorta. The aorta an inch and three-fourths in diameter. The pulmonary artery imperfectly closed by the semilunar valves. Pleuritic adhesions over the whole left lung. The auriculo-ventricular valve on the right side, imperfect.

Mr. C. had suffered under a slight cough for some time, perhaps several years, but it gave him no particular inconvenience until about two months prior to his death, at which time I saw him riding along the road; he had at that time considerable cough, and complained of pain in the right side—was directed to use the Syrup. Scill.—in a few days was relieved very much, and discontinued his medicine nearly seven weeks prior to his death. We might state, that no examination was made of his chest, by auscultation or percussion.

He was intemperate in his habits, had suffered from syphilis. His chest was large and full; his figure athletic, and well proportioned. He had been for two or three years incapable of active labor—complaining of shortness of breathing, &c.

We present this novel case without comment, leaving the reader to make his own deduction

ART. XLVII.—CASE OF AMPUTATION AT THE SHOULDER JOINT.

It must be allowed that the capital operations of surgery have, since the introduction of anæsthetic agents, lost a great deal of their formidable character ; for, if we mistake not, the shock of these operations had a large share in the occasional fatal results by which they were followed. This cause of failure is now removed, and the principal accidents we have to guard against are hæmorrhage, profuse suppuration, formation of abscess, and necrosis of bone. From the cases which have been recorded, and from those which we so frequently see in the hospitals of London, we might perhaps infer that these untoward circumstances are, in tolerably healthy subjects, of rare occurrence ; and we suspect that the careful and judicious dressing, the generous diet, and good ventilation of wards, have no small share in these favorable results.

With these facts before us, it is natural that we should inquire whether amputation at the hip-joint will ever be performed with as many chances of success as is now done for the shoulder. Perhaps it will ; at least we do not see why the contrary should be the case. No one will, of course, deny that the surfaces acted upon are far more extensive in the latter than in the former instance ; but as the risks of the shock are now removed, it is plain that the two operations are on the same footing in this respect. The external iliac artery is not more liable to secondary hæmorrhage than the subclavian, and the cotyloid cavity not more obnoxious to necrosis than the glenoid ; so that the two pathological manifestations which would really create hazard at the hip, as compared with the shoulder, are formation of abscesses and profuse suppuration. But careful dressing and attention to diet and ventilation would certainly exert as beneficial an influence in hip cases as when the amputation takes place at the shoulder ; and thus one might almost venture to predict that operations at the coxo-femoral articulation will in future days be more readily performed than hitherto. There is, however, one circumstance which will ever render both amputations, (and in fact the removal of a great portion of the limb, wherever it is taken off,) somewhat dangerous—viz: the congestion of internal organs consequent upon the removal of a large portion of the frame. That pneumonia, apoplexy, &c. &c., do not more frequently follow such operations, is probably owing to the loss of blood inseparable from the ablation of limbs ; but there is sometimes so little lost, that the absence of congestive symptoms must be partially referred to the drain occasioned by the secretion of pus. At all events, it is plain that the hæmorrhage which accompanies amputation, and the suppuration attending upon the healing of the stump, need not be looked upon with apprehension, except the patient be very weak and exhausted by previous disease.

We must in some degree apologize for alluding too largely to am-

putation at the hip-joint ; but in reviewing the cases of encephaloid cancer of the upper part of the femur, which have hitherto been reported under their varied circumstances, we could not help noticing that removal of the limb, at the hip-joint, might have afforded a shade more hope as to the non-recurrence of the affection ? Regarding the shoulder, surgeons now do not hesitate one moment when disease or accident imperatively call for the operation. We merely wish, therefore, in mentioning the following cases, to adduce facts which are likely to strengthen principles of practice which are already pretty firmly established. The first case was treated by Mr. Cock, and from Mr. Pininger's notes we gather the following particulars :

H. S.——aged 30, a leather dresser, was admitted July 12, 1851, into Luke Ward, under the care of Mr. Cock, in consequence of a severe gun-shot wound of his right arm. The patient states that on the morning of the accident he was shooting rooks, when, having occasion to get over some railings, he placed his gun (which was loaded but not cocked,) on the inner side of, and leaning against the railing. When he had climbed over the latter, he drew the gun through it by the muzzle, and the trigger, being directed downwards, came to be partially raised by being pulled against a bar. The gun unfortunately went off, and its contents, (common shot,) passed through the man's right arm, close to the shoulder.

Upon examination, the humerus was found completely shattered, from about half an inch below its head to four inches down the shaft ; there was extensive laceration of the soft parts around the limb, but the axillary artery and plexus appeared to have escaped injury. The men who brought the patient to the hospital said that he had lost much blood ; and as the hemorrhage was still going on, Mr. Cock amputated at once at the scapular articulation, though the man was still in a state of collapse. The operation was speedily completed, the patient being, in the mean time, kept up by the administration of brandy. The greater part of the deltoid muscle had been destroyed, but a tolerable, although somewhat scanty flap, was obtained from each side. The margins of the wound were brought together in the usual manner, after the vessels were secured, and when reaction had set in, half a drachm of laudanum was given to the patient.

The progress of the case was marked by two principal features—cough and the formation of abscesses ; of the latter, some formed about the *latissimus dorsi*, others in the axilla, and one even about the crest of the ilium ; but by good diet, tonics, the successive opening of the purulent sacs, and careful dressing, the patient left the hospital with a good cicatrix, about three months after the operation.—*London Lancet*.

ART. XLVIII.—QUININE AND OPIUM IN THE COLD STAGE OF PAROXYSMAL FEVERS.

We have long thought it a desideratum in practice to find out some mode of treatment by which the practitioner may be enabled, when summoned to a case of remittent fever, *during the cold stage*, to cut short the paroxysm—to extinguish the intense febrile re-action, which usually succeeds the cold stages of our summer and autumnal diseases. When called upon to visit a patient, and we find him shivering with a chill—with blue lips and fingers—goose-flesh, shrunken surface—quick, small, feeble pulse—more or less nausea—great thirst—and, in a word, laboring under the usual distressing symptoms of the cold stage of fever, we usually content ourselves with warm foot-baths, tepid drinks, &c. ; but these domestic remedies serve only to hasten and augment the reaction ; they do not even abridge the febrile paroxysm which must succeed the chill.

We are about to recommend measures which will meet the indications so much desired in these cases, such as we have frequently tested in hospital, and sometimes in private practice. MacIntosh practiced blood-letting in the cold stage of fever ; but if this treatment proved beneficial in some cases, it operated injuriously in others ; and thus, by common consent, venesection in the cold stage of fever has been abandoned in the United States, as far as we know.

Full doses of quinine and opium, given in the midst of the cold or shivering stage of fever, will be found both safe and efficacious in the large majority of cases. It puts a stop to the cold or chilly stage, increases the fullness, while it diminishes the frequency of the pulse, allays, as by enchantment, the violent neuralgic pains with which the head, back, limbs, etc., of the patient are tortured, equalizes the circulation, promotes free perspiration, and rarely fails to extinguish the intense febrile reaction which, without the interposition of our art, rarely fails to succeed the cold stage of our autumnal fevers. Opium and quinine, thus administered, seem to restrain the violent action of the heart and arteries, the former of which is curbed, so to speak, by the combination, and held within its normal force and frequency. The patient passes at once from the chill or chilly, into the sweating stage—characterized by a full, soft and regular pulse, a warm, moist and relaxed surface, absence of thirst, headache, restlessness, and the usual concomitants of intense febricity. He exchanges great suffering, pains and uneasiness, for sweet and refreshing slumbers, for the most part, from which he awakes at the end of a few hours, perfectly delighted with himself and his physician.

By this treatment, we arrest the paroxysm more certainly than if we had administered the quinine during the apyrexia ; the series of morbid phenomena, by which a paroxysm of intermittent fever is characterized, is broken up ; and the quinine and opium appear to

arrest the disease definitively, by extinguishing the germ of morbid action. The dose, in the instances recommended, should be from 20 to 25 grains of the sulphate of quinine, and from 2 to 4 grains of opium, in combination; it may be repeated in severe cases, but in diminished doses, after the first three or four hours.

Quinine and opium, given at the moment advised, are less likely to disturb the encephalon than might be suspected by those who have never ventured to try it in the cold stage of fever, to adopt a misnomer. Treated after the method above recommended, the paroxysm is broken up, and will rarely recur the second time, although we may withhold the further use of remedies. Under our plan, convalescence becomes speedily established, the patient rapidly recovering his appetite and strength. Many, and we include ourselves, venture to administer the quinine and opium during the height of the febrile excitement, with the most beneficial effects; but it must strike any reflecting mind, that if opium and quinine, given during the stage of exacerbation, exercises a sedative influence over the heart and arteries, how much more rational and easy to keep down such febrile excitement, by interposing our remedies before all the links in the chain of morbid causes which constitute a febrile paroxysm, shall become firmly united!—*N. Orleans Med. and Surg. Journal.*

ART. XLIX.--CASE OF IMPERFORATE ANUS, THE RECTUM COMMUNICATING WITH THE BLADDER.

On the 19th day of December, 1852, Mrs. ———, was delivered of a healthy looking male child, of ordinary size. On the second day after its birth, it was discovered that there was not the slightest appearance of an anus, nor pouting on making effort of any kind. It was determined to afford the only chance of living by operating, and accordingly an incision was made, (Dr. Briggs using the knife,) in the perineum, and extended upward, in the direction of the rectum, to the depth of $1\frac{3}{4}$ inches. There was no escape of fæces or gas, and it was deemed unsafe to continue the operation. The wound was filled with lint, and not removed for several days, when there was still no pouting from above indicating the proximity of the rectum—the wound was dressed occasionally in the same way until it healed.

Between the second and third week after birth, something like meconium was discovered on its diaper, and that the urine was very heavily loaded—and on a more close examination it was found that

dissolved fœces abounded in the urine. The discharge of urine and fœces continued about twenty days, and gradually diminished in quantity till they ceased altogether, when the swelling of the abdomen, which had been advancing during the whole case, rapidly increased. It continued to suck heartily from birth to within a few days before its death, which took place Feb'y. 13th, fifty-six days after birth. Unfortunately we could not procure a *post mortem* examination.

J. P. F.

Nashville, Tenn.

ON TRACHEOTOMY IN APOPLEXY AND EPILEPSY.—*Laryngismus* is the event which separates the *graver* from the *milder* forms of apoplexy and of epilepsy, assuming in the former the *paralytic*, in the latter the *spasmodic* form.

It is to avert the effects of this laryngismus that I propose to institute tracheotomy. This is my object, and has been so from the beginning. I have never had the idea of proposing empirically a remedy for the *name* of a disease, be it apoplexy or epilepsy. In order that my view may be carried out fairly, the following facts must be first established :

1. The case must still be inorganic ; there must be a well founded *hope* of doing good.

2. There must be the *dignus vindice nodus* ; there must be sufficient reason for adopting the measure ; there must be *danger* to life, mind, or limb.

3. This danger must depend on *laryngismus* ; that is, on paralytic laryngeal dyspnœa or stertor, in the apoplectic or comatose cases, and on spasmodic laryngeal dyspnœa in the epileptic.

In regard to all these circumstances, a just and sufficient *diagnosis* must be established, as in all other cases in the practice of medicine. Without such diagnosis the remedy would be, must be, employed in vain, as it would assuredly be instituted without sufficient reason.

Every event convinces me that, if these just precautions be effectually adopted, the success of the remedy will prove infallible ; and that the cases are numerous in which life and intellect will be saved.

If the remedy prove ineffectual, it will be because the DIAGNOSIS has been inadequate.

I am, sir, your obedient servant,
London *Lancet*.

MARSHALL HALL.

ART. XLIX.--ARE NOT PURGATIVE MEDICINES TOO COMMONLY USED ?

Very soon after commencing the study of medicine, we read Hamilton on Purgatives, and notwithstanding the time that has elapsed, we remember that we did not affect the positions of the author, nor the arguments on which he relied, and which gave his opinions such general adoption. At a later period we became acquainted with Cook's theory, leading to the same practical applications, and which, we think, has done more extensive havoc than Byron, and Minor and Tully ascribed to the lancet—"destroyed more lives than the bayonet."

That a more general application of purgative agents was demanded about the time of Hamilton's publication, and of Cook's Therapeutics, we are willing to admit ; and that such medicinal substances are all important under the skilful direction of an observing and reflecting practitioner, is abundantly evidenced by the almost uniform resort to them in treating disease. But is not this uniformity an abuse of a good thing, a violation of the Apostolic injunction, "using as not abusing" ?

From the moment that the animal economy becomes a breathing living being, change is the law of its continuance, and the end effected by function. And in the fulfilment of this law, the skin, the kidneys and the lungs, as well as the bowels, perform their part ; and under a state of relations nearly approaching those which are considered as natural, the bowels would probably require as small a proportion of attention as any other single portion of the economy, on the part of the prescriber of remedies. Indeed, we are informed that the custom of the aboriginal medical man is to produce an excessive action on the skin, thus destroying the surcharged condition of the system, on which depended the loss of the equilibrium of health. But in these times of progress, when the mind is active, if not effective, beyond the capacity of the material part, when the body is subjected to all kinds of irregularity, and the tone of the stomach, is subjected to all sorts of trials, at unwonted times, and its capacity of distensibility tried to the utmost, to satisfy an educated palate—it, and its immediately dependent organs, the bowels, are more frequently the first to give evidence of diseased action, and more commonly the seat of an evil influence which is manifested from other

and more distant parts of the system, or from the economy as a whole. But are these evidences and manifestations to be destroyed by cathartics?

No one, at this late day, at all able to reason, but approbates the medication which does not look to purgatives as the agents with which to cure fever, periodic or continued, or inflammatory action, whether in the brain, lungs, abdomen, or any where else; regarding the mildest of them rather as simple means by which the physician is able to control the action of one important system of the economy, inducing an approach to regularity, and thus preventing an incidental interference during the progress of the disease he may be treating. No one, who feels the weight of professional responsibility, but in the spirit of rational empiricism, relies on quinine and its analogues, to cure periodical fevers—on animal broths, and appropriately selected stimulants, to preserve the vital capacity while a continued fever runs its course, and on the lancet, mercury, opium, tartar emetic and other agents, to subdue inflammation. And yet, under almost all circumstances of disease seemingly confined to the alimentary track, without the diseased action is obviously and acutely inflammatory, purgatives, essentially such, and with a vehemence of administration proportioned to the time and quantity of dejection, obtained in response to the impression of the intended to be remedial agents, are prescribed. This is not the effect of Hamilton's reasoning, or of Cook's influence. Broussais has tried and enunciated his doctrine, and one exclusive hypothesis has shown the errors of another—the purgative routine has measurably given place to more rational practice; but yet when the abdominal viscera send forth complaint, the first great practical demand of the one hypothesis, which destroyed the prejudicial influence of the other, is wholly forgotten, if ever known, to let the first passages remain free from impressions urging them to action, and purgatives cease to be harbingers of joy and ease, and assume under the guise of friendly intentions, the position of mortal enemies.

The symptomatology of constipation is extensive, an alternation of depression and elation of feeling; at one time the individual sufferer indulges in excessive joy and pleasurable excitement, and the next moment in childish whimperings and silly poutings; at one time exercising the most noble impulses of affection, and at another indulging in any or all of the vicious tendencies of a depraved disposition; sympathetic apoplexy, convulsions, the pathognomonics of lumbago, fevers and insanity, and simple nausea, or excruciating burning of

the stomach, vomiting, and severe griping pains, and tension of the abdomen. All the symptoms in fact which are enumerated by nosologists, or by systematic writers on Practice, are consequent upon, positively produced by, as well as accompanied by constipation itself; under the last mentioned condition but an effect, a link in the grand chain of correlative causes and effects. And yet with the glimmering light of a circumscribed personal observation, and a tithe of the observation which is on record in possession, we exceedingly doubt the propriety of, indeed we protest against the uniform employment of purgatives, properly so called, when constipation exists.

In our judgment the practitioner should use his powers of ratiocination as considerately when called to a case of disease, the manifestations of which proceed wholly from the abdomen, as when investigating symptoms having a more general, or a more occult origin; for it is a fact never to be forgotten at the bed-side, that *symptoms often hide the disease, as well as that diseases often MASK the symptoms.*

These thoughts are presented suggestively and by way of introduction to certain cases of disease, some of which have terminated fatally, and one yet under observation, to be laid before the readers in other numbers of this journal.

But have we not said enough, without any appeal to cases, to induce every practitioner who honors us with a perusal of this hastily written paper, to ask himself, do I not too commonly employ purgatives?

From how many will we get an answer with reference to cases which they can report? We hope the future numbers of our journal will exhibit the fact, that some attention has been given to the question, ARE NOT PURGATIVE MEDICINES TOO COMMONLY USED?

April 7, 1853.

F. A. RAMSAY.

ART. L.—ABSTRACT OF A METEOROLOGICAL REGISTER,

Kept by O. W. MORRIS, A. M., at the Tennessee Institution for the Deaf and Dumb, Knoxville, Tennessee, 1853.

JANUARY.

Barometer.	Thermometer.	Winds.	Cloudiness.	Rain. (quantity.)
Means, 29.136	36.91.6	West	4.92	2.31
Thermometer, Minimum 15.1 Maximum 59.8 Range 44.7				
Barometer,	do	28.295	do	29.672 do 1.377

Greatest rise of the mercury in 24 hours, in the thermometer was 24.3
do do do barometer was .62

It snowed on 4 days to the depth of about $4\frac{3}{4}$ inches, and rained on 5 days. A Lunar halo was observed on the night of the 19th, and the Zodiacal light on the evenings of the 25th, 27th and 29th. it was very distinct and beautiful on the 27th.

FEBRUARY.

Barometer.	Thermometer.	Winds.	Cloudiness.	Rain.
Means, 29.028	41.206	N. W.	5.6	9.0
Ther. Min. 21.5	Max. 58.5	Range 37.		
Bar. do 28.492	do 29.362	do	.870	
Greatest rise of the mercury in the thermometer in 24 hours was 24.				
do	do	barometer	do	.702
It snowed on the 23rd. about 6 inches in depth, and rained on 10 days. On the night of the 27th there were three thunder-showers, succeeding each other, after brief intervals; the lightning was vivid, and some heavy thunder. There was lightning also on the night of the 28th, but no thunder.				

MARCH.

Barometer.	Thermometer.	Winds.	Cloudiness.	Rain.
Means, 29.058	46.54	N. W.	5.26	3.39
Ther. Min. 12.9	Max. 41.	Range 58.1		
Bar. do 28.759	do 29.347	do	.588.	
Greatest rise of the mercury in the thermometer in 24 hours was 28.5				
do	do	barometer	do	.584
It snowed on the 3rd and 5th about $2\frac{1}{2}$ inches in depth, and rained on 5 days. Lunar haloes were observed on the nights of the 19th and 24th, the former large and distinct, the latter small and colored. The last six days of the month have been unusually smoky.				

DEPARTMENT OF CHEMISTRY AND PHARMACY.

REPORT

TO THE TENNESSEE MEDICAL SOCIETY,

ON THE ADULTERATION OF MEDICINES, CHEMICALS, DRUGS, &c.

By RICHARD O. CURREY, M. D., Nashville, Tenn.

As chairman of the committee appointed at your last annual session, to report on the adulteration of drugs, medicines, chemicals, &c., I beg leave to present the following for your consideration. In the prosecution of this duty, I had fondly hoped to have had the assistance of others on the committee, but failing in this desire, I am under the necessity of presenting an individual report :

The subject submitted for investigation is as important to the healthful progress of your noble profession, as it is conducive to the well-being of the family of man. The diseases incident to life are, of themselves, sufficiently painful and obstinate, without requiring the aid of adulterated or deteriorated medicine to aggravate them.

It is needless to enlarge upon the high mission of the profession of medicine, to remind this learned association that, in all of the eras that mark the progress of the human family, the physician and his remedies have occupied a commanding and an influential position.

Neither is it necessary to remind them of the sacred character which their science possesses, from the designation which the Savior of mankind, in his mission of love, assumed as the GREAT PHYSICIAN. To imitate His piety, His disinterestedness, His benevolence, and His readiness to aid the distressed and relieve the sick, should be the desire of all those who engage in the humbler avocation of administering to the relief of the diseases that flesh is heir to. Regarded by the light of this bright Exemplar, what are the results that flow from the physician's mission? Are they commensurate with the high estimate placed, by the common consent of all, upon his profession? Does he secure the end which it is designed to accomplish? Has he the talisman by which he can stay the ravages of disease, and send

joy and hope, with renewed life, coursing through the veins of the desponding patient? Does he avail himself of the *right* and *proper means* for restoring the health and preserving the lives of those who confide in his skill? If he be thus panoplied, success will attend him in all his labors, and his very entrance into the chamber of sickness will inspire hope and revive the desponding spirit.

But why is it that the medical attendant is so often baffled in his attempts to alleviate pain and cure disease? Why is it that from samples of the same medicine, prepared by two chemists, different effects are produced? With high hopes and ardent aspirations, the young physician starts out on his career, and, fresh with the honors of college upon him, fondly expects to meet and successfully contend with disease on every occasion. Cases frequently occur which resist his most reliable agents, and often he is reluctantly driven into consultations by anxious friends, with those whose qualifications, perhaps, are inferior to his own. And he has, perhaps, had the additional mortification of seeing diseases yield to the treatment of the consulting physician, when, it may be, no change had been made in the remedial agent. Thus, when a remedy fails, after repeated trials, to produce the desired effect, it is useless for the physician, and dangerous for the patient, to persist longer in its administration. A physician, who regards his own reputation, as well as the life of his fellow man, will not allow himself to be thwarted thus in his labors.

The use of impure medicines can never avail as a plea for the want of success. It is not enough that the physician is accurate in the diagnosis he forms of disease—he should know, and that without the least shadow of a doubt, that the remedy he employs is pure and genuine. That adulterations do exist, the experience of the medical profession has sadly felt. Sometimes the fact is plainly established in the inertness of the remedial agent, at others in the aggravated effects resulting therefrom; and then chemical analysis, that revealer of dark deeds and hidden secrets, brings up to the light of day the baseness of such frauds. Standing by the bedside of the dying friend, we may have been the saddened spectator of the unyielding nature, as we supposed, of the disease; but the analyst reveals to our astonished gaze the medley of impurities which we had been prescribing for its cure—proving to us that our labor has been in vain, and worse than in vain. Two witnesses, therefore, experience and analysis—the sick couch and the laboratory—testify to the base character of many of our medicinal agents. That this expression is not exaggerated, allow us to pass in review our most familiar and most useful medicines. And that this sketch may be useful, we accompany the description of each medicine with an account of the agents with which it is most generally adulterated, as well as the tests for their detection:

Aloes.—Of the six varieties of this resinous extract, only three are of sufficient importance to merit notice, the *cape*, *hepatic*, and *socotrine*, and of these the last is the most valuable. The usual adulterations are sand, earth, &c.; but a great fraud is practiced in palming off the two inferior for the more valuable socotrine. There are char-

acteristic properties belonging to each, however, which will guard the purchaser, in some degree, against imposition.

Cape aloes possesses a shining, resinous appearance, a deep brown color, and a glossy, resinous fracture. Its powder is greenish yellow, and produces a paler colored decoction than the other kinds. Its odor is strong. Thin laminæ present a yellowish, red color, when held up to the light.

Hepatic aloes is opaque—of a liver color, whence its name—of a moderate degree of fragrance, it might be called unpleasant. Fracture rough and semi-transparent on edges. Powder dull olive yellow. When held in the hand, it softens and adheres.

Socotrine aloes gives a glossy, smooth and conchoidal fracture—is of a garnet red color, and yields a golden yellow powder. Thin laminæ are translucent or nearly transparent on the edges. Its odor is highly fragrant, which is, to a great degree given off, when a portion is heated. I take the liberty of presenting samples for the inspection of the association.

Alum, which is the sulphate of alumina and potassa, crystallizes in regular octohedrons, but is, in the commercial article, without regular form. It is adulterated with iron, thus rendering it unfit for the dyer. It should give a colorless solution. Tincture of nutgalls or prussiate of potash, will detect, in such solution, the presence of iron. Unslacked lime, added to the dry powder, will give off the odor of ammonia, if that alkali be present, and nitrate of silver will detect the existence of chloride of sodium, or common salt.

Ammonia Aqua.—We have, in commerce, five strengths of this alkali, designated as F., FF., FFF., FFFF., and blistering ammonia. When adulterated with organic matter, a carbonaceous substance will be left after evaporation by heat. The addition of muriatic acid forms sal ammoniac, which, if resinous matter be present, will not be pure white or clear, when evaporated. Lime water will detect the presence of carbonate of ammonia, by forming a white, insoluble carb. lime. Nitrate of silver will detect the presence of muriate of ammonia by forming the white chloride of silver, usually termed horn-silver, and chloride of barium will throw down an insoluble sulphate, if sulphate of ammonia be present.

Carbonate of ammonia volatilizes entirely by the application of heat, and effervesces on the addition of an acid.

Tartrate of antimony and potassa, when in the crystalline form, is readily recognized, being in white, transparent, rhombic octohedrons, whose lateral planes present a striated appearance. When powdered it readily admits of foreign admixtures, the most usual of which are the bitartrate of potash. If the powder has a yellowish tinge, the presence of iron may be suspected, which may be detected by adding to its solution a few drops of sulphuric acid, and subsequently the prussiate of potash. If then the characteristic blue prussiate results, iron is present. If the bitartrate of potash be present, its solution in 40 parts of water will be effected by its own volume of 8 parts acetate of lead in 32 parts water and 15 parts acetic acid.

Arrow root, from the East Indies, does not crepitate between the fingers, like that from Bermuda or the West Indies. When pure, full 15 minutes are required for it to gelatinize and become adhesive, whereas, potato starch, with which it is adulterated, rapidly stiffens and becomes tenacious. The microscope will detect the different varieties of starch granules that may exist in the arrow root.

Arsenic, being very volatile, a residue will be left if white sand, chalk, bone dust, or heavy spar, its usual adulterations, be present.

Sub-nitrate of bismuth effervesces, if chalk or carbonate of lead be present, on the addition of nitric acid. Diluted sulphuric acid will throw down from this nitric acid solution a white precipitate, if lead be present.

Cantharides often deteriorate by age, and are subject to injury from mites. In the powder or plaster they are adulterated with euphorbium, which also possesses irritating and vesicating properties. The presence of this adulteration may be ascertained by heating the substance, when, if a benzoic acid vapor be given off, its presence is established. The microscope may also detect its presence. To this may be attributed the frequent inertness of the cantharides plaster of the shops, as well as to an insufficient quantity of the Spanish fly.

Castor oil is the only one of the fixed oils soluble in alcohol—hence this affords a test for lard oil or any other cheaper admixture. Castor oil capsules, containing but a very small proportion in each sac, would be insufficient to produce a purgative effect, were not this compensated by the addition of a minute portion of croton oil. Instances have occurred of painful and even fatal gastritis, resulting from the administration of these capsules.

Chloroform, when pure, is perfectly transparent, possessing a sp. gr. 1, 5. It possesses an extensive solvent power. This property enables us to use it as an analytical agent in separating substances from their foreign admixtures, as resin of guaiac from resin of jalap—cinchonia from quinia, and narcotina from morphia. Pure chloroform, when allowed to evaporate on the hand, leaves no smell. If an unpleasant odor remains, it is evidence of the presence of some peculiar oil, which is not volatile, and which has been generated during the manufacturing process. The presence of these oils is also supposed to be tested by the discoloration of pure sulphuric acid, though the experiments of others have not confirmed the supposition. Instances have frequently occurred of death resulting from the use of chloroform. This is doubtless owing to the impurity of the article, not because it is of itself thus fatal. Perfectly pure chloroform has never produced such results. Can it be otherwise when we may find it varying in strength from one twentieth to three fourths of what it should be. Free chlorine and hydrochloric acid have been detected in it by the litmus paper. If alcohol be present as a diluent, the bichromate of potash, with a few drops of sulphuric acid, will cause the production of the green oxide of chromium, floating on the surface. There has also been noticed the formation of minute crystals, of a pink color, on the sides of the bottle at the upper surface of the

fluid, an impurity resulting from the oxide of manganese, used in its purification. To be safe in its use, its sp. gr. should not be less than that indicated, 1, 5 ; while it should be fragrant and clear—no unpleasant odor on evaporation—should not redden or bleach litmus paper, nor give a greenish tinge when agitated with sulphuric acid.

Cinchona is estimated by its external as well as chemical characters. So many different varieties of this truly valuable bark have been found, that the strictest vigilance is necessary to prevent fraud in its importation into our ports. Its value is determined according to the quantity of quinia it yields. Recently, a new principle has been discovered in some barks brought from Carthagena and Maracaibo, called quinidine, from its great resemblance, in all its characters, to quinine, though as an anti-periodic it is valueless. M. Guibourt reckons the value of the different cinchonas thus :

1. Calisaya cinchona, royal yellow.
2. Cin. micrantha, orange yellow.
3. Pitaya, “ “
4. Verrucous true, red.
5. Non-verrucous true, red.
6. Red Lima.
7. Grey Lima.

The calisaya bark is distinguished from all others which are fraudulently mixed with it, by “the shortness of the fibres of the entire transverse fracture, and the ease with which they are broken, instead of bending and remaining adherent.”—(Prof. Carson, in *Am Jour. Pharm.* April, 1850.) Its color is uniformly yellow, and possesses no white marbling in its thickness. The nail, when drawn over its internal surface, leaves a shining mark, and its outer surface is conchoidal. Calisaya has, also, a more intensely aromatic, bitter taste than the other barks, this characteristic varying even in its different varieties. At the recent National Pharmaceutical Association, Dr. Bailey reported that he had rejected at the port of New York, 300,000 lbs. of spurious bark, especially of that variety that contained exclusively the newly discovered principle, quinidine. He was led to reject them from the conviction that they were to be employed in the adulteration of powdered calisaya, as well as of quinine. The ostensible object for which they were imported was for the manufacture of *tooth powders*. The price of barks, in good condition and of good quality, at the place of collection, is said to be not less than from 60 cts. to \$1,00 per lb., for those yielding quinine—on the contrary, it is frequently invoiced to this country at 10 cts. per lb. As it takes 2 oz. to make one ounce of quinine, it may be readily conjectured why it is that quinine can be sold sometimes as low as \$2,00 per lb., and the powdered barks as low as 50 cts. and \$1,00 per lb.

Citric acid belongs exclusively to the vegetable kingdom, being found in lemons, limes, sour oranges, tamarinds and tomatoes. The juice obtained by expression is readily crystalized in white, inodorous, rhomboidal prisms. They possess a sharp, sour taste, are soluble partially in water, and insoluble in alcohol. Its value subjects it

to sundry adulterations, as lime, tartaric acid and sulphuric acid. With chloride of barium, sulphuric acid, if present, is precipitated as an insoluble sulphate of baryta. Muriate of potash detects the tartaric acid by the formation of a tartrate of potash, and lime will be left after incineration. The lemon syrup of commerce is more frequently made of tartaric acid than of either citric acid or of the pure juice of lemons. According to Soubeiran, citric acid precipitates baryta, and not lime, from their solutions, whereas tartaric acid exerts the contrary effect. Moreover, citric acid is deliquescent, while tartaric acid is not.

Cod liver oil has become so popular in the treatment of diseases of the chest, simulating phthisis, that it is subject to various adulterations, the most common of which is sperm oil. Pure cod oil has the odor of sardines, and is free from the lamp oil odor—sp. gr. 9, 7. With nitric acid of sp. gr. 1, 215, a dull green hue is gradually assumed, which, after several days, changes to brown, whereas sperm oil, with an acid of same sp. gr., produces a pale brown without a shade of green. Besides this impurity, which is intentionally mixed with it, others are attributable to want of care in assorting the cod from the *haddock*, the *hake* and the *pollock*, certain species of the finny tribe which accompany the cod in their haunts, and which are, consequently, caught at the same time.

Balsam Copaiva.—M. Guibourt, acting under the authority of a commission from "Ecole de Pharmacie de Paris," after examining a variety of samples of this oleo-resinous balsam, asserts that the four following properties indicate a balsam that is certainly pure: 1. Entirely soluble in 2 parts of absolute alcohol. 2. Forming at 60 F. a transparent mixture with two-fifths of its weight of a strong solution of ammonia. 3. Solidifying with one-sixteenth of its weight of calcined magnesia. 4. Producing a dry and brittle resin after prolonged ebullition with water.

Its usual impurities are castor oil and turpentine. The presence of this fixed oil will prevent its solubility, according to the first property; neither will the resin left after ebullition harden, but will remain soft. A drop on paper, volatilized by heat, leaves a translucent spot, if pure, but if impure, this spot will be surrounded by a fatty areola. Castor oil will also prevent the transparency of the mixture with the solution of ammonia. Turpentine is detected by its odor.

Creosote.—I present, for examination, two samples of creosote—the one pure and colorless, the other impure and reddish, with an empyreumatic odor. The adulteration in this sample is owing either to rectified oil of tar, or a peculiar article called *capnomer*, which, in many of its physical and chemical properties, is similar to creosote. The presence of these impurities may be detected by acetic acid and caustic potash, which completely dissolve the creosote, if pure, but if adulterated, will not.

Cubebs, in the powder, is adulterated with ground allspice, by which the taste will be so altered as to lead to their detection.

Ergot, in the powder, is rendered inert by the admixture with plaster and paste.

Ether, sulphuric, has a permanent boiling point at 98 F. The addition of impurities will have the effect to raise it to a higher point. Turpentine will also cause a nauseous odor to remain after moistening a handkerchief with it.

Gum Arabic, when pure, is in round, white lumps, or in masses presenting a brittle and crackly appearance. Its pure appearance distinguishes it from the inferior sorts, with which it is sometimes mixed. Gum Senegal is, however, bleached for this express purpose. The pure gum, however, is perfectly soluble in water without swelling, from which solution it is precipitated by alcohol. The salts of the peroxide of iron yield an ochre precipitate with gum senegal, while a red coloration will be afforded with the true gum Arabic. It is in the powdered state that these tests are of the most value, when it is impossible to detect by the eye, as can be done in the solid state. If starch is with the powder, it may be tested by iodine—the characteristic blue being produced.

Iodine, that has not been *resublimed*, is always more or less impure, hence we have a *commercial* and a *resublimed* article. It has been a mooted question whether the operation of the law is adverse to the admission of the commercial iodine, on account of its impurities, into our ports, and so far the action of our inspectors, as well as instructions from the Secretary of the Treasury, have been against its admission. The most common impurity with which the *commercial* is sophisticated is the large proportion of *water*. The standard of purity adopted by the inspectors, will not allow of more than 2 per cent. of water, yet it is found of all grades, varying from 2 to 20 per cent. An argument offered for the admission of such is drawn from its employment in the manufacture of the iodides, and for *daguerrean* purposes, for which it is said to answer as well as the *resublimed*. The law, however, is express on this subject, forbidding the importation of any medicine or chemical that is not pure enough for medicinal purposes, and, as it is conceded by both parties, that the commercial is not of that purity, it is very properly excluded. At the recent National Pharmaceutical Association, Dr. Stewart, to get at the sense of the members on this subject, introduced a resolution to the effect, that all articles, good of their kind, should be passed at our ports. As the importers of this commercial article acknowledge their design to be for manufacturing purposes, it was urged that it should be admitted. The whole subject was discussed—Prof. Carson, of the University of Pennsylvania, among others, taking a part in it, yet the resolution was rejected.

Other impurities found in this chemical are *black lead*, *charcoal*, *black oxide of manganese*, *Galena*, *sand*, *clay* and *chlorides of magnesium and of calcium*, and free *chlorine*. Pure *resublimed* iodine is in dry crystalline scales. If they adhere to the sides of the vial, it is an evidence of the presence of *water*. If entirely vaporizable on application of heat, it is an evidence of the absence of inorganic impurities. The

magnet will separate the black lead, which is truly a carburet of iron, from the mass, if present; it is also insoluble in alcohol. Muriatic acid, mixed with it, will evolve chlorine, affording evidence of the presence of oxide of manganese.

Ipecacuanha root is composed of two parts, the cortex and woody fibre, in the proportion of 4 to 1. The virtues of the root reside exclusively in the bark, the woody fibre being inert. Hence it may be seen that when the root is ground up, regardless of these distinctions, one-fifth of its active properties is destroyed, consequently the choicest powdered ipecac is now labelled *cortex sine ligno*. The root is annulated, rendering its recognition easy. Hence it is only in its preparations and powder that it admits of adulteration. Liquorice root is frequently ground up to a large extent with it, and again the peculiar powder, called "powder of post," is also added to it. This, of course, would weaken its emetic properties, to restore which its adulterators resort to a certain proportion of tartar emetic. With the microscope we can detect the different starch granules of these several powders—while sulphuretted hydrogen will produce an orange precipitate, the golden sulphuret of antimony, if tartar emetic be present. The presence of foreign substances will also affect its action with certain chemical agents.

Magnesia calcined.—This substance admits of such ready adulteration, that it is rarely found absolutely pure. It is known to contain carb. lime, carb. magnesia, alumina and silica. With the carbonates, an effervescence will take place on the addition of an acid. A complete solution cannot be effected if silica be present, and the alumina will afford a white precipitate with ammonia, if present in the muriatic acid solution. If lime be present, oxalate of ammonia produces a precipitate from the same acid solution. *Carbonate of magnesia* is also adulterated with the same substances, and may be detected by the same tests.

Blue mass—pilula hydrargyri, if of the officinal strength, should contain one-third mercury. While, therefore, it frequently falls far short of this standard, it is also found to contain a strange medley of impurities, as compensating agents. The following analysis, made by Prof. Reid, of New York, upon a sample of imported blue mass, presents these filthy substitutions in a striking manner. In one hundred grains there were of

Mercury,	7½
Earthy Clay,	27
Prussian Blue,	1½
Lard,	2
Soluble saccharine matter,	34
Insoluble organic	12
Water,	16.

Pure blue mass should contain $33\frac{1}{3}$ grains mercury in 100. Here we have only $7\frac{1}{2}$ —nearly four-fifths less than there should be. Sulphate of mercury is also found in it, and when so, it renders the mass highly injurious. This impurity arises from the gross error of endeavoring

oring to heighten the color of the conserve of roses by means of sulphuric acid. Consequently, on mixing the ingredients into a mass, a chemical action takes place—the deep blue color of the mass partakes of a golden tinge, from the formation of the sulphate of mercury. Its presence may be suspected when this particular tinge is found, but readily ascertained after washing, by means of the baryta test. The inorganic earths will be left after incineration of the mass, and Prussian blue by striking an ink with sulphate of iron.

Mercury ammoniated, white precipitate, so closely resembles dry white lead, calomel, chalk and gypsum, in several of their physical properties, that it readily admits of adulteration. Pure white precipitate may be entirely sublimed on the application of heat, being resolved into mercury, nitrogen and hydrogen. If, therefore, any adulterations exist, there will be a residue left.

Peroxide of mercury, red precipitate, is also readily susceptible of adulteration with red lead, brick dust, Armenian bole, nitric acid and red oxide of iron. A strong heat will also readily vaporize this substance, if pure; if impure, a residue will be left. It is also entirely soluble in muriatic acid, and hence its impurities, if any, will subside.

Protochloride of mercury, pure calomel, acted upon with a solution of iodide of potassium, changes to a greenish yellow, and with lime water or the caustic alkalies, it blackens. Treated with nitric acid, it affords a white precipitate with nitrate of silver, soluble in an excess of ammonia. The physical properties of calomel are well known, being insoluble in water, alcohol, ether, and muriatic or acetic acids, inodorous and tasteless. Its usual adulterations are chalk, gypsum, phosphate of lime, carb. lead, sulphate of baryta, sal ammoniac, &c., and corrosive sublimate through faulty preparation. The test of its adulterations is easy, for it is entirely vaporizable by heat, if pure. The presence of corrosive sublimate is manifested by the yellow, not black color, afforded by lime water, and a scarlet color with iodide of potassium. Again, corrosive sublimate is soluble in ether and calomel not. It may thus be separated, if present, and then, by the evaporation of the ether, the corrosive sublimate will assume a crystalline character. While writing this report, I procured three samples of calomel severally of the manufacture of Mander, Weaver & Co., Howard & Farr—and not one failed to afford very unequivocal indications of the presence of corrosive sublimate. That of Mander, Weaver & Co., was the most impure.

After the application of a strong heat, if a residue is left its character may be ascertained, for if a carbonate of lime or lead, it is soluble, with effervescence, in dilute muriatic acid—if an oxide of lead, hydrosulphuret of ammonia will change it black, and yellow by iodide of potassium—and if a white precipitate is afforded with oxalic acid and oxalate of ammonia, the residue is lime.

Bichloride of Mercury.—Corrosive sublimate forms a *yellow wash* with lime water or caustic alkalies, thus distinguished from the black wash of calomel. It is also soluble in ether, and less so in alcohol and water. With iodide of potassium a scarlet precipitate is produced.

Mercury, Red Sulphuret.—Vermilion is a paint, but the following analysis shows its great impurity. Out of ten samples,

3 of the Trieste vermilion were pure.

1 “ “ contained 15 per ct. carb. magnesia.

1 “ “ contained 26 $\frac{1}{2}$ “ “ “

1 French, “ pure.

1 “ “ contained 35 per ct. sulphate of lime.

2 Chinese, “ contained 48 and 62 per ct. chromate lead.

1 American “ was entirely red lead.

Morphia and its salts are soluble in water and alcohol, and insoluble in ether. Of the three salts, the sulphate is determined by the baryta test, the muriate by the silver test, and the acetate by the odor of vinegar. Their impurities are sugar, narcotine, and perhaps starch. Narcotine is insoluble in water, chloroform and solution of potash—and soluble in ether, the action of solvents differing, in a remarkable manner, with the two substances. The crystalline character affords a good test, pure sulphate of morphia being in small filiform crystals. The impurities present no such regularity. If pure, nitric acid gives to the salts of morphia a blood red color, changing to yellow—perchloride of gold affords a yellow, and the salts of peroxide of iron a blue precipitate.

Essential and fixed oils are also contra-distinguished as *volatile* and *fat* oils. The former being the more valuable, are adulterated with the latter. The detection of such adulteration is, however, easily made, for if a transparent, greasy stain is left, after the application of heat to a drop on paper, it affords evidence of the presence of such adulteration. All of the fixed oils, except the single instance of castor oil, are insoluble in alcohol, while the essential oils are entirely so. Chloroform is also a solvent for the essential and not for the fixed oils. The fixed oils afford a saponaceous compound with alkalis—the essential oils do not.

Opium is estimated according to the amount of morphia it contains. While, therefore, its adulterations may consist of sand, earths, leaves, vegetable extracts, &c., these are nothing compared with the fraud sometimes practiced of reducing the per centage of morphia contained in the mass, by extracting it, to a certain extent, and then remoulding the cakes and passing them into the current of trade. Opium has been presented for admission into our ports that was so impure, as to be actually alive with *worms*. This statement is made by one of the examiners.

Pure Smyrna opium is in irregular, roundish masses, of a highly bitter, nauseous taste, and brownish, red color, and more or less soft, according as it is fresh or old. In Mohr's Treatise, a method is given for ascertaining the proportion of morphia, and I beg leave to incorporate a succinct account of it in this report: Half an ounce of opium is to be macerated in an ounce and a half of cold water, for twenty-four hours, then strain and strongly express. Repeat the maceration for six, and then again for three hours. Prepare a thick milk of lime with one drachm of quick lime, to which add the infu-

sion when boiling hot. Boil for five minutes, then strain through cotton cloth, wash the residue with boiling water, and express. Evaporate the liquor thus obtained to one ounce, filter through paper, and heat to boiling. Then by the addition of one scruple of muriate of ammonia, the impure morphia will be precipitated. Allowing from six to twelve hours for the precipitate to collect, it is then to be dried and weighed. This will afford the morphia exclusive of narcotine.

Bicarbonate of potassa crystallizes in oblique prisms, thus distinguished from the carbonate, which exists in a granular form. It may be remarked here, that the crystalline form of the various chemical compounds affords ready means for ascertaining their character. Every inorganic mineral, whether compounded in the laboratory of nature or of the chemist, possesses a certain definite crystalline form, which it will assume at all times, unless the presence of a foreign substance gives to the crystal-making particles different axes, and thereby create a new and different form; and such will be the result. Crystallography, therefore, furnishes invaluable aid in chemical analysis. This salt of potash is adulterated with the sulphate, muriate and carbonate. The sulphate is detected by nitrate of baryta, the muriate by the silver test, and carbonate of potash by the action of corrosive sublimate—if even a trace is present, a brick red precipitate being produced.

Bitartrate of potash is known in commerce only in the powdered form, and is, therefore, frequently adulterated. Marble, alum, gypsum, bisulphate of potassa, flour, rice and starch, are used for this purpose. C. V. Hagner, in the *American Journal of Pharmacy*, gives his experience in drug grinding. It was with this article that he commenced this business. For many years he had the entire control of such work, until his process became known, and rival establishments sprang into existence. One of these establishments failed, and one of the hands sought employment with him. He could do every thing—"powder this, powder that, and grind 'tother—never had any difficulty except in grinding cream tartar." I expressed, says Mr. Hagner, my astonishment, knowing it to be the easiest thing in the whole catalogue of drugs to powder, and on asking him what the difficulty was, he replied quite innocently, "*the alum always sticks the stones fast.*"

In testing it for its impurities, marble and gypsum will remain undissolved in any amount of water—alum will be precipitated in a gelatinous form, by heating the solution to the boiling point, and then adding ammonia until the liquid acquires an alkaline character.

Iodide of Potassium.—The principal adulterations of this valuable medicine are carbonate of potassa and chloride of sodium. Iodide of potassium is very soluble in water, and in five times its weight of alcohol—is *slightly* deliquescent and of a pungent taste. Carbonate of potassa is insoluble in alcohol—is very deliquescent, and consequently its presence will cause the iodide to assume a pasty, semi-fluid condition. It will also effervesce with acids, and redden turmeric paper. Either of the chlorides may be detected by the silver test.

The quantity of iodine present may be ascertained by separating it from the potassium by heat, condensing the scales and weighing either of the ingredients separately. In a sample analyzed by Dr. Christison, he found 74 parts of carbonate of potassa, 16 of water, and only 9 of the iodine.

Sulphate of Quinine.—The ingenuity of man has been at work to discover substances with which to adulterate this valuable medicine. Whatever would the more closely resemble it in its physical properties, seemed to have been sought out with avidity for this base purpose. At one time cinchonine was made to retain its place with the chemical—then salacine was ascertained to possess somewhat similar properties, and was mixed with it in large quantities—and then again mannite, and stearine, and starch, were severally used for the purpose. But a new principle has been recently discovered in a species of Peruvian bark found in Maracaibo and Carthagena, which, from its great resemblance to quinine, has been called *quinidine*. There is not the least doubt that our valuable sulphate is largely adulterated with this inert substance. So fully impressed have our examiners been with this belief, that they have rejected large quantities of these false barks. Zimmer has published a severe test for this new principle, and I here present the association with the appearance presented by two samples of quinine, tested according to his mode. The one, which was taken from an ounce jar of Powers & Weightman's manufacture, is almost transparent, there being, however, a thin film between the separating fluids. The other, taken from a jar labelled Rosengarten & Denis, is, as you see, a dense mass of filthy impurities, suspended between two fluids. Zimmer's test is as follows: To ten grains of the salt add ten drops of diluted sulphuric acid and fifteen drops of pure water, in a strong test tube fitted tightly with a cork, and apply a gentle heat to accelerate the solution. When cooled, add to the solution fifty drops of official sulphuric ether, with twenty drops of spirits of ammonia, and shake the mixture while the top is closed by the thumb. The tube is to be then closely stopped and shaken gently from time to time, so that the bubbles of air may more readily enter the layer of ether. "If the salt examined be free from cinchonine and quinidine, or contain the latter in no greater proportion than ten per cent., it will be completely dissolved; while, on the surface, where contact of the two layers of clear liquid takes place, the mechanical impurities only will be separated. If more than a tenth of cinchonine or quinidine be present, an insoluble precipitate will be found interposed between the two fluids. If it be quinidine, it will be dissolved on the addition of ether, while cinchonine will remain unaffected." Other impurities may be detected as follows: Gypsum, chalk and magnesia, are left undissolved—boracic acid is soluble in alcohol, and tinges the flame green, if ignited. Cold sulphuric acid, C. P., will not form a colorless solution if stearine, sugar, mannite or salacine be present.

Rhubarb may be obtained of two varieties, the Chinese or India, and Russian or Turkey. The English, though sometimes substituted

for the other sorts, is very inferior, and not at all reliable. This, and also the India, are assorted, and the better specimens disfigured to resemble the Turkey; as much as the fifth of a cargo being found to be these inferior sorts. To lighten the color, turmeric is rubbed over the root, or mixed with the powder, to which there is also added a proportional quantity of gamboge to increase its cathartic effect. This may be detected by digesting in ether, and pouring a few drops of the solution on water: "if gamboge be present, a film of opaque yellow color will be found floating on the surface, which is dissolved by potash, and is changed to an intense red color." It is stated that within 80 days previous to the passage of the Drug Law by Congress, 7,000 pounds had been passed through the Custom House of New York, not one pound of which was fit for use. Some were worm-eaten, others deteriorated by age, and the remainder had evidently undergone maceration to extract the active properties for the preparation of extract of Rhubarb. And doubtless all of this was subsequently powdered, and so fixed up as to sell for a high price as true Turkey rhubarb.

Scammony.—One of the rarest medicines to be found is *Pure, or Virgin Scammony*. It bears a high price, and both physicians and apothecaries seem more content with the cheaper adulterated article, than to risk the sale, or incur the expense of the genuine. Of the three varieties, the Smyrna is good for nothing, the Aleppo contains about 30 per cent, and the Virgin Scammony 78 per cent. The Lancet for February, gives an account of the examination of thirty samples procured in London. Out of thirteen samples of Scammony in cake, *one* only was *genuine*; the others being adulterated from 8 to 75 per cent. One sample was entirely *facititious*, being composed of the resins of guaiacum and jalap, with woody fibre, cellular tissues, &c.

Out of seventeen samples of powdered Scammony, only *one* was *genuine*, the others varying in adulteration from 18 to 65 per cent. The adulterating substances consisted of chalk, wheat flour, sand and earthy substances, gum, woody fibre and cellular tissue. I take pleasure in presenting samples of this gum resin, in cake and in powder. Pure Virgin Scammony should contain 78 per cent of resin. Chalk will be detected by effervescence with acids, and flour or starch, by the Iodine test, and by the microscope.

Nitrate of Silver is offered for sale in the form of pure crystals, or in rolls or sticks, designated as No. 1. and No. 2. The three varying in purity from the pure to 60 per cent and 30 per cent. The adulterations of this last, are so abundant as to render it unsafe for administration. For internal use none but the *pure* should be used. The usual adulterations are nitre, lead, zinc and copper. Hydrochloric acid will detect nitre, by separating the silver as an insoluble chloride, and then testing for the nitre in the solution. Copper will afford a blue color, with caustic ammonia, and lead will be blackened by sulphuretted hydrogen.

Spirit of Nitric Ether.—Nothing is more common than to dilute this valuable diaphoretic with variable proportions of water and alco-

hol. Hence the physician is often disappointed in the result derived from its employment. Water having the effect to render it heavier, will raise its specific gravity, and alcohol will change its odor. The commercial article generally contains 33 per cent of water.

Thus much for the analytical view of our subject. There is another means within our power for exposing these base frauds. The eye aided by the microscope, can be familiarized with the appearance of pure and genuine substances, and fails not to detect when one is mixed with another. The forms of crystals readily reveal to us their chemical character, it being a fixed law of the crystalline forces, that a substance will assume the same crystalline form, if left alone or unmixed, wherever made; but it was not until recently, that the microscope was discovered to subserve such an important purpose in the examination of powders and other medicines. Crystalline organic products have been found to possess as great a diversity in structure and form, as inorganic crystals, and according to Dr. Pereira and Mr. Queckett, may be used as a criterion of their purity. They may thus be referred to their respective origins. These indications are offered, it matters not how minute they may be, in the form of the cells, the shape of the starch granules, and the condition of the spiral vessels of the organic product. Of course, the examiner should be acquainted with the appearance of undoubtedly pure substances, so as to be enabled to form a correct conclusion.

These are the means within our reach for the detection of adulterated medicines. Not one, but every important remedial agent, has been subjected to adulteration. It were well if the substances employed for this purpose were inert or innocent, and thereby produce only delay; but frequently they are of such character as to render them highly injurious, aggravating the disease, if not placing the patient's life in jeopardy. Much of the inefficiency of medical practitioners, may be attributed to these causes. Here, too, is afforded an apology for the apparently bold practice of many of our medical men. Small portions of quinine failed in their effects, and the remedy was pushed to Herculean doses, and still no quinism resulted. Teaspoonfuls of calomel have found their way, in single doses, through the system of the sinking patient, and yet it failed in its effect, and your humble reporter has failed in producing emesis upon his own person even with a dessert spoonful of ipecac. Where such things happen, the physician is not the sole loser. Mortification and chagrin at such repeated failures, it is true, have dampened his ardor for his favorite science, and it may be, he is ready to join in the taunt and cry out, "Throw physic to the dogs;" but the suffering patient, either in his prolonged pain, or its aggravation, feels more keenly the fraud practiced at his expense.

THE SOURCES OF ADULTERATED MEDICINES.—We are led to inquire into the sources of these frauds. They are two fold—*foreign importations* and *home manufacture*. We are dependent upon other countries for the most valuable of our medicines. Many are imported direct from the countries that produce them, others come to us after

they have found their way into some European laboratory or drug house. We import, therefore, *extracts* and *chemical preparations*, as well as the original roots, leaves, barks and flowers. It is not strange, therefore, that attempts should be made, and with success, to introduce spurious and adulterated articles into our country. So extensive had this nefarious traffic become, previous to 1848, that every ship that was borne on the wings of the wind across the ocean, was freighted with these missiles of death. Stringent laws prevent the sale of such deteriorated and adulterated medicines in all European countries; consequently, when such are found to be accumulating, they are overhauled, their form changed to a powder or extract, and a cargo is put afloat for the American market. No laws existing here to prevent their admission, provided they were invoiced by their proper name, with correct weights, they were passed and eagerly bought up at reduced prices, for the western trade. Into this valley, so recently a wild forest, where the "medicine man" of the Indian held his sway, and sought his remedies from her productive bosom, the adulterated and deteriorated drugs of other countries pour like an avalanche from the mountains upon us, to poison and kill the life-blood of the sons and daughters of our people. Too much praise, therefore, cannot be meted out to those who, in 1848, resolved upon checking this baneful tide that rolled upon our shores. Fortunately for suffering humanity, there was one in our Congress, Dr. Edwards, the member from Ohio, who felt the importance of this subject. The petitions that went simultaneously from the colleges of pharmacy and medical associations, were referred to a committee, of which he was chairman, and his report presented such startling disclosures to the consideration of the House, that a law was proposed as a remedy for the evil. To the praise of the College of Pharmacy of New York, be it recorded, that they were the first to move in the measure, by the publication of a series of appeals to the proper authorities. The Philadelphia College of Pharmacy added the strength of its testimony, and in May, 1848, the American Medical Association, while convened at Baltimore, planned a memorial to Congress. Their appeals were heard and appreciated. It was expected that active measures would be resorted to to impede the progress of such a law before Congress, and that if adopted, obstacles would be thrown in the way of its operation. But the fact that no one, however strong his opposition, has endeavored to evade, or petitioned to set aside this law as grievous, for more than four years, speaks volumes for its popularity. Its operation has not restricted commerce, nor retarded manufactures. That it has produced a decided improvement in the quality of imported medicines, even its most violent opponents will admit. Dr. Bailey, the examiner for the port of New York, states that *chemical preparations* were the first to feel the beneficial effect, and that, as soon as it was known in Europe that competent examiners stood as sentries at our sea-ports, and that no article would be entered that did not stand the test of a certain standard, it would have been folly in the extreme to have incurred the expense of resisting or of eva-

ding the law. Hence, every branch of the drug trade was improved. During the year 1847, over 4,000,000 lbs. of drugs were passed through the port of New York alone, and taking Dr. Bailey's estimate of adulterated, damaged and deteriorated articles at one-third the whole amount, there were over 1,000,000 lbs. imported that year, unfit for medicinal purposes. In a report made by him recently to the publishing committee of the *New York Journal of Pharmacy*, he states that, from 1848 to 1852, a period of more than three years, he had rejected 610,000 lbs. of drugs and chemicals, embracing

304,135	lbs. of	Peruvian bark,
31,838	"	Senna,
37,121	"	Jalap,
65,374	"	Sarsaparilla,
1,384	"	Scammony,
3,200	oz.	Quinine,
6,864	"	Iodine,
3,720	"	Iodide Potass.

This drug law went into operation July, 1848. The port of New York receives about one half of such imports, and Dr. Bailey is its vigilant inspector. During the first seven months of the working of the drug law, he rejected 19,989 lbs. *rhubarb root*, but since that time, nearly four years, only 6,000 lbs.,—during the whole of 1852 not condemning a single pound. Of *opium*, during the first seven months, he rejected 3,347 lbs., but from that time up to the date of his report, a period of two and a half years, only 3,164 lbs. During 1852 he rejected only 950 lbs. while he passed 70,000 lbs. Of gamboge, 1,414 lbs. were rejected within two months after the passage of the law, but not one pound since that time. Of gum myrrh, during the first nine months he rejected 2,977 lbs., but none since. The same healthful tone was communicated to all other imported drugs. It will be thus seen that the law operates well, and only requires the combined influence of physicians and pharmacutists, to secure its ultimate good results. Thus, much has been done to remedy the evil growing out of foreign importations. But how stands the case at home? Could there be any who would avail themselves of the advantage given them in the absence of law, to trample upon public opinion; ay more! who would defraud their own countrymen, by basely adulterating the pure medicines and chemicals secured to them by the law of Congress? Thus the law may be regarded as a *protective* measure. Just as it is, the *domestic* adulterations which are extensively practiced, tend to lessen the price of American chemicals, to the prejudice of the honest importer. We say extensively practiced—for it cannot be denied that large establishments, in all our eastern cities, are daily in the habit of practicing this fraud. An extensive establishment in Brussels, which had, previous to the passage of the law, done a large exporting business to this country, as soon as they found their occupation gone, located a branch in our midst, for the express purpose of weakening, by adulterating the chemicals sent them. And we are told by one who once

did business in New York, that it was a common practice in the third story of the large establishment in which he was engaged, to adulterate the pure quinine imported from abroad, half and half, with salacine; and such practice is still pursued. A case has been cited of a lot of quinine that had passed the New York custom house after close examination, thence passing into a New York drug establishment, by whom it was sold to a firm in Boston. An order having been received for California, before shipment, this lot was again examined, and to the surprise of all, was found to have imbibed, in its travel from the custom house to Boston, 25 per cent of mannite.

Allow me to run hastily over the various forms in which medicines are employed, that I may at once present to your view the readiness with which such frauds are practiced:

All substances derived from the vegetable kingdom, such as roots, barks, leaves, woody fibre, flowers and seeds, while they do not admit, in their original form, of adulteration, are, however, liable to deterioration by age, as well as to admixture with inferior sorts. But if reduced to the form of powder, they readily admit of such adulteration. Powdered medicines, moreover, deteriorate by age, as well as from exposure to air and light. The microscope readily detects a variety in the starch granules and spiral vessels, while the inefficacy of the powder, as also its taste and color, will show the effect of age, and the influence exerted on it by atmospheric agencies and light. A large portion of the ordinary powders are unreliable, and the purity of such, when offered at reduced prices, should be suspected.

But the efforts which are being made to furnish physicians with select powders are deserving of all praise. Such are the "select powders" of Haskell, Merrick & Bull, of New York, and the "extra powders" of Schiefflin, Haines & Co., of the same city, besides others. These medicines are selected of the best quality, and each substance, before being submitted to the grinding process, is sampled, and every portion rejected that appears in the least unsound. They are then ground, and carried through various siftings so as to reduce them to an impalpable powder. These medicines are then bottled and encased in paper boxes, so as to prevent any action from external agencies.

Tinctures may be made of any strength to suit the purse of the purchaser. They are, moreover, liable to various changes, by which some become the stronger, others the weaker, by age. For this reason they are very unreliable. Often the alcohol is contra-indicated in the disease for which they are administered, and there is scarcely a disease that may not be as well treated by the same medicine in some other form, as the active principle, extract, powder or infusion. Not less than 240 tinctures are recognized as officinal, and yet of these not 20 are in daily use by the faculty. Few physicians use more than a half dozen in a life-time's practice. The price of these tinctures will generally afford a criterion of their strength. I have before me now three prices current, from as many extensive drug establishments, located severally in Boston, New York and Philadelphia.

The price of tinctures at these ports of entry, it may readily be supposed, does not exceed, by a large per cent., the imported costs of the articles, and yet the single article of laudanum is quoted in the Boston house at 80 cents per lb., in New York at 30 cents, and in Philadelphia at 50 cents. Such diversity could not exist without some reason for it, and it cannot be believed that such a great difference would be found in the original cost of the ingredients, as the prices current would seem to indicate. The cause is found in the mode of manufacturing. Opium, not powdered, but in the lump, with all its leaves and trash that usually accompany it, or it may be partially exhausted by having had its morphia extracted, or perhaps in less quantity than directed in the Pharmacopœia, is employed for this purpose. Let us analyze this tincture with reference to its cost. Take powdered Turkey opium, two ounces and a half, at a cost of \$1.25, and diluted alcohol two pints, worth 15 cents, to which add 10 per cent. for loss, and for labor in making, and the cost of this amount, about two pounds, will be \$1.60, or 80 cents per pound. This estimate is made from the selling prices of these articles, in the quantities ordered by the United States Pharmacopœia, which should be the standard for all pharmaceutical preparations. Any deviation from it should be particularly stated before dispensed from the establishment. Standards are given that the strength of the medicine may be known *without the least shadow of a doubt*. In tinctures, the alcohol is only the vehicle for holding the desired remedy in a state of minute subdivision, which may be supposed begins to act only after the peculiar effects of the alcohol have passed off. Unless, therefore, the pharmacist follows closely the directions laid down for guidance with reference to the quantity, form and quality of the drug, strength and quantity of the alcohol, time of maceration and subsequent filtration and expression, it is almost impossible, at two different times, to prepare the same tincture of the same strength. And if they vary, what guide has the medical practitioner? He *guesses* at the dose, he *aims* to secure certain results, and if disappointed, has no other alternative but to attribute the failure to the obstinacy of the disease, or the *idiosyncrasy* of the patient.

Somewhat similar to the foregoing, as uncertain in their strength, are *extracts*, which require to be made either by maceration in water, or in alcohol, or in a mixture of the two fluids. Hence we have aqueous, alcoholic and hydro-alcoholic extracts. Great care is required in their preparation to render them reliable as a form of medicine. As in select powders, it was gratifying to note several praiseworthy efforts being made to present the profession with pure powdered medicines, so in hydro-alcoholic extracts, Tilden & Co., Thomas, and others, are preparing a series *in vacuo*, upon which the most implicit reliance can be placed. But while these laudable efforts are struggling for the supremacy, and for favor with medical men, others are adopting this form for covering up a multitude of frauds, which can only be detected from their inefficiency or inertness. And with such, offered at a cheap price, the country is filled. Hence, there is

a great reluctance on the part of the profession, to the employment of extracts.

Chemicals, embracing a large class of remedial agents, belonging to the organic and inorganic kingdoms, are the most valuable forms of medicines. But the readiness for effecting adulterations with them is apparent to all. It is fortunate, however, that science here bestows her kindly aid in readily detecting such impositions, chemical analysis, and the external characters, especially the crystalline form, guarding us against these frauds.

This view will suffice to give an insight into the ease with which frauds are practiced. Thus we see, that while our ports are closed against impure medicines, busy hands are at work glutting the market, and underselling honest manufacturers with cheap adulterated drugs. The single idea of *cheapness* has taken such firm hold upon us, in all our business transactions, having extended itself even to that class of purchases in which our health and physical well-being are directly concerned, that any medicine or chemical that has a high price, is, by a large portion of the medical profession, set aside for something cheaper. To be *dirt cheap*, must be a *sine qua non* with many of these pill venders—we cannot call them physicians. It is not by the non-professional that encouragement is given to the sale of cheap medicines. But it is too true, and your committee has had numerous instances to come under his own observation, that many of those engaged with us in prosecuting this noble profession, are content with the use of unreliable means, so they secure the end for which they labor, their pecuniary emolument. The relative pecuniary value of medicines being of more moment to them than their quality, or their own reputation and the lives of their confiding friends. *Physicians* must denounce the vending of impure drugs, if they would wish the evil remedied. This is a point of far more importance than that of patent or quack medicines. It is that upon which the honor, the success, the respectability of honorable medicine depends. Give the preference to cheap drugs—discard pure chemicals because they are costly, and at once honorable medicine is lowered to the level of quackery. It will be but guess-work at the best, and undeserving of the high estimate universally conceded to it.

Excuse me, therefore, gentlemen of the medical society, for acting the part of a medical attendant on this occasion. *He* is called upon, not only to point out the nature and extent of the disease of his patient, but also to prescribe for its removal. Having, therefore, endeavored to point out the sources of this evil, its character and extent, it may not be irrelevant to the object of this report, to offer a few suggestions as to the best mode of remedying it, at least so far as the medical faculty is concerned. Intelligent pharmacutists strongly condemn the practice of such frauds, and colleges of pharmacy and pharmaceutical associations are not slow in discountenancing it.

1st. It is highly important that every physician should be his own judge of the medicine he administers. The mechanic knows the tem-

per and the quality of his tools, without possessing a knowledge of their manufacture. So the physician, though it is not his duty, as it does not belong to his profession, to compound medicines, or make pharmaceutical preparations, yet should be able to pronounce intelligently and certainly upon all such used by him. Such information is to be obtained by actual analysis, and no place is more fitted for communicating such instruction than in the chemical department of our medical colleges. But your committee, though it has been his privilege to attend upon six courses of chemical lectures, has never seen or known any efforts made to inform the classes in reference to these things. Our medico-chemical laboratories do not fulfil the purpose for which they were created. How few among the thousands who tread our medical halls, care any thing for the chemical course beyond the recreation afforded in witnessing beautiful experiments, being, therefore, the least useful, and at the same time, most expensive of all the professorships, while, on the contrary, it should yield to none in interest, as it does not in importance. To the department of *Materia Medica* appertains, in part, the description of the characteristics existing between pure or genuine, and impure or adulterated medicines. But in the department of chemistry, the student should be shown the difference by actual analysis, and be taught the mode for detecting them himself. If possible, specimens of the various powdered drugs, chemical preparations, tinctures, &c., should be exhibited, and the analysis of them, in some regular, systematic order, be made a part of the chemical course. Medical chemistry it is which is needed in medical schools—that branch of the science which relates to the nature and characteristics of the various medicines employed in the treatment of disease. Just as the student of agricultural chemistry makes himself familiar with the general principles of the science, and then directs his attention to the analysis of soils and plants—to the investigation of the nature and habits of the vegetable world, so as to enable him, in the application of the science to agriculture, to make two blades of grass to grow where but one grew before; and just as the student of chemistry, in its application to the arts, also becomes familiar with the first principles of the science, but then directs his attention to the influence exerted by, and the application of this science to the various manufactured productions—so should we provide for the student of medical chemistry. His object is not to become a chemist, but to acquire that amount of the general principles of the science, which will enable him to render it subservient to his success in the profession upon which he is about to enter. The opinion is, therefore, becoming general, that a reformation is demanded in the courses of chemical instruction in our medical colleges. Till this be done, our graduates will be unprepared to pronounce knowingly upon the purity or impurity of medicines. Thus deficient, they are liable to gross and unpardonable mistakes, not only in using medicines that are unreliable, but also in ordering prescriptions filled with incompatibles, exposing themselves to the criticism of every apothecary's apprentice who may get a glance at

them. We do not object to medical students acquiring thorough knowledge of the sciences, especially of chemistry, but the medical hall is not the proper field for such acquisition—other institutions are created for the prosecution of the natural sciences to their fullest extent. “*Ars longa, vita brevis*,” is an adage that cannot be engraven too deeply on the mind of every student following the paths of instruction. He who assiduously cultivates but one portion of the extensive domain of science, and therein renders himself a master workman, who needeth not be ashamed, works out for himself an enduring name, as well as contributes to the progress of the age in which he lives. The world is the gainer by possessing such an inhabitant. The idea then is to adapt the courses of chemical instruction in our medical schools to the science of medicine, so as to qualify those who enter upon the practice of this profession, fully adequate to decide for themselves as to the purity of those agents with which they aim to overcome disease. Such instruction would tend greatly to remedy the evil pointed out in this report.

2d. Pharmaceutical education is another important means for securing this end. It should be regarded as essential for the business of dispensing medicines. In this respect, other countries are far before our own. In Sweden, no youth can enter as apprentice in an apothecary's shop, who is under fifteen years of age, and who has not gone through a school course of history, geography, mathematics, Latin and modern languages. In England, to practice pharmacy requires a diploma from a college of pharmacy. But in our own country, the monied qualification is the only requisite; the profits of the business being the *sine qua non* with four-fifths of those who engage in it. But we confidently hope that a brighter day is dawning. The science of pharmacy is beginning to be regarded as twin sister to the science of medicine, and that whatever affects the one, equally affects the other. This arises from the attempt now being made to dis sever the two professions, and place each upon its proper basis, yet as auxiliary to the advancement of each other. The colleges of pharmacy of New York and Philadelphia, have nobly struggled for years, to elevate their science to its proper position, and are now beginning to reap the reward of their labors. In all of our large cities pharmaceutical associations are being formed, and during the last year, by the united action of all such associations throughout our country, the National Pharmaceutical Association was organized. It is gratifying to your committee, engaged now as he is, exclusively in promoting this department of honorable medicine, though claiming paternity from the household of Æsculapius, to bring to the notice of his medical brethren the efforts of pharmacutists to elevate their profession to its proper position, by requiring higher qualifications for membership in their associations than merely the ability to conduct ably a drug establishment. The pharmacist stands between the physician and his patient. As the compounder of his prescriptions, and the dispenser of medicines, the physician's success is, to a certain degree, in his hands. Such a responsible position requires a

thorough pharmaceutical as well as practical training. It seems to be an inevitable result that there should be a distinction made between the apothecary and the druggist—the former standing between the physician and the latter. He, the apothecary, would be accountable for all medicines compounded and dispensed, and patronage should be extended to no one unless he had a certificate of graduation from some college of pharmacy.

General chemistry, theoretical and practical pharmacy, materia medica and medical botany, are all essential for the proper practice of pharmacy—years of practical training in a drug store cannot be substituted for this course of instruction. It is true, our assistants may become expert as salesmen, and be able to pronounce an opinion respecting the character of the ordinary medicines; but the daily routine of duties in our establishments, is too imperative to allow of any systematic or regular instruction, and hence, especially in our western country, there is a deficiency of instruction in pharmacy. We hope, however, that the day is not far distant when the college of pharmacy will take its place along side of the medical hall, or when such advantages will be given to students of pharmacy in our medical schools, by the establishment of professorships of theoretical and practical pharmacy, as will induce them to qualify themselves properly for their responsible duties. Such professorships *might* be instituted as collateral, not as indispensable, for every member of the institution. There is no doubt but that many would avail themselves of such advantages in connection with the courses on Chemistry and Materia Medica. Pharmaceutical education is, therefore, another important means for remedying this evil.

3d. Foreign adulterated and deteriorated medicines being declared contraband by our national Congress, it devolves upon our state legislatures to devise some means by which home adulterations may be arrested. More, however, is to be gained by popular opinion, and by pharmaceutical and chemical education, than by any other means. Our legislatures may pass laws, inflicting heavy penalties upon all who may adulterate, or knowingly sell adulterated or deteriorated medicines, but who is to be the judge in such cases?

Regarded in any light, the subject of this report is one of great interest. It involves more than the preservation of our estates—the honor of man is implicated in it—his life, and the consequent happiness and welfare of families. Was every medicine strictly pure, and every physician fully competent to his duty, the honorable science of medicine would not be an uncertain profession. Quacks and their nostrums would no longer find a resting place, for they would be regarded as monsters

“Of such frightful mien,
That to be hated needed only to be seen.”

The earth teems with a multitude of medicinal agents, presented pure to us, for the cure of disease, from her fruitful bosom. As we derive from it the elements of sustentation, granted so exuberantly that it is only necessary to put forth our hand and pluck and eat—

so for every ill there is afforded a remedy—for every disease a cure. Medicinal agents are the gifts of heaven. Science and art, the hand-maids of religion, apply them to the noble purposes for which they are designed.

These, gentlemen of the Medical Society, are the means which have been perverted by designing men, for selfish purposes—and it devolves upon you, by uniting your influence with others engaged in the same honorable mission, to put forth your energies for remedying the evil.

Nashville, Tenn., May 4th, 1853.

Preparatory Medical School.—DR. GOOCH, Secretary of the American Medical Association, and the talented editor of the *Stethoscope*, alluding to our Knoxville *confrere's* School of Medicine, says :

“Many applicants were rejected because they did not possess the requirements designated as necessary before commencing the study of medicine by the American Medical Association.” This is a shame ; but we can safely promise that Dr. Ramsey will not abandon the high and noble stand which he has taken. He will maintain it and ultimately succeed, despite the hungry bidding for students by institutions which pay their delegates to go to the National Association to try to defeat every measure of *practical* reform in our poor system of making doctors. These same institutions heed no counsel given them by the profession, probably because they think the *profession* a mass of asses, (created by themselves,) because the applicants for admission had no other merits than the capability to pay the fees. Well, as they make and perpetuate the species, they have a better right to know the material and character of it than any body else, and they may act and govern themselves accordingly. But unless they do something, and that speedily and effectually, to change this state of things, they deserve to be scorned down by public opinion and the concentrated influence of the better part of the profession. When the day of retribution comes, it will be sudden and powerful, and it will then be too late for *any compromise*.

DEPARTMENT OF DENTAL SURGERY.

ART. LII.—THE DENTAL DEPARTMENT.

We occupy the Dental Department of this number of the *Journal* chiefly with selected articles or abstracts, which we hope will be found of interest to the medical, as well as dental profession. They relate to matters which are as legitimately within the province of the general practitioner, as those relating to the eye, the ear, the tongue or any other member or part of the system whatever. Indeed there is not a fact relating to the dental organs, or an operation in dental practice but deserves the attention of all medical men, for they all involve physiological and pathological principles, which are applicable and necessary in illustrating and developing those which have a bearing upon the general science, and that too practically as well as theoretically.

Dental science has of late been prosecuted with a zeal and energy, which have in many respects greatly outstripped the researches in other branches of the healing art. Theories prevalent fifty years ago, with modes of practice based upon them, have given way to more correct views, some established with the force of demonstration, and others undergoing intelligent discussion.

But the dental profession could not hope for much scientific advancement without keeping up with the progress of medicine. Indeed, no well educated dentist, devoted to his science, would think of getting along without the aid of one or more medical journals for this purpose. And it would seem that practitioners of medicine might equally derive benefit by noting the progress of dental science. If during the past ten or dozen years, the medical profession had paid a reasonable degree of attention to this branch, if for instance, every reading physician had taken a dental periodical, or if the medical journals had given as faithful an expose of the condition of dental

surgery, as of other specialities, it would no doubt have contributed greatly to the advancement of medicine proper.

Now the dental department of this journal aims at that which we think should have been done years ago through the medical periodicals of the day. It aims to acquaint the profession with the important improvements, discoveries and researches in dental science and its collaterals; hoping to supply a deficiency which has two long existed in medical journals, and which has afforded just ground for complaint on the part of well informed dentists. This, it was believed, would make the Southern Journal more useful and acceptable to all medical men, whether devoted to the speciality of dental surgery, or to general practice.

The Department is designed to embrace whatever relates to the *dental system*, and the parts intimately connected therewith, whether directly or by functional and sympathetic relation—to the buccal cavity, and also the external parts of the face, physiological, medical and surgical. It also contemplates subjects from departments of natural science. Odontology, now cultivated as a distinct branch of philosophy, comes properly within its scope: and much pertaining to zoology in general, comparative anatomy, ethnology, &c.

We hope our correspondents will bear this in mind, and lend us their co-operation.

B. W.

ART. LIII.—A BRIEF EXPOSE OF DR. HULLIHEN'S IMPORTANT DISCOVERY FOR THE PRESERVATION OF THE HUMAN TEETH.

By JOHN TRENOR, M. D., Dentist.

An unusual degree of interest has recently been excited in professional circles, by the announcement from Dr. Hullihen, of Wheeling, Va., of a novel and successful mode of treating that class of diseases of the teeth, where the internal pulp, or, as it is commonly called, the nerve, of the tooth, has become exposed, whether as a consequence of ordinary decay, gradually decomposing and removing the bony structure by which this pulp tissue is encased, or where this has been laid bare, in the act of cutting out the decaying substance, with the intention of replacing it and filling the cavity with some one of the materials usually employed for such purpose.

It is not the writer's intention, at present, to enter into any detailed account of the many valuable practical benefits which must result from this important discovery, but simply to give such physiological

statements in regard to it as will enable the reader to understand the nature of the difficulties which this class of cases has been found to present, as well as the very successful and novel mode of treatment by which they are not only cured, or prevented, but the teeth and the internal pulp, both preserved in a perfectly healthy and normal state.

It is known to all your readers that the bony substance or dentine of the teeth, is formed from a previously existing tissue, termed the pulp, similar in form and bulk to the fully developed body of the tooth, and consisting of a congeries of nerves, arteries, veins, and most probably of absorbents, which run together in the closest imaginable network, so that the point of the finest cambric needle cannot pass its surface without opening some one or more of those vessels. As the bony substance increases, this pulp mass decreases, until finally after the teeth are fully formed, this change from pulp to bone seems almost to cease, only keeping pace with the gradual wearing away of the teeth, in the fulfilment of the purposes for which they are intended. When, however, decay commences and progresses in the bony substance of the teeth, this conversion of pulp into bone, either does not take place in the direction in which the decay is proceeding, or if it does, it is so slowly, that this pulp, sooner or later, becomes denuded, (if not arrested by artificial means,) thereby exposing this enclosed delicate and sensitive tissue to external sources of irritation, from the influence of foreign agents pressing upon it, and thus producing the ordinary and painful sensation of tooth-ache.

One of the characteristic peculiarities of organized matter is that of being able to resist, to a certain extent, and where it cannot resist, to be able to repair the effects of injuries from deleterious agents, and in proportion to the degree of organization is this power presumed to be possessed.

The internal pulp of the teeth being, therefore, of this highly organized class, should, of course, exhibit this peculiar trait with a force corresponding to the degree of its organization, unless restrained by some counteracting influence, and such unfavorable influences there are as regards the teeth; as almost every one is but too familiar with. The recuperative power of the pulp, under the state of the parts we have described, does not take place, for reasons which we shall now go on to detail.

The effect of irritation of an organized tissue, is to augment the flow of fluids to the part, thus producing swelling, &c., &c.; but if the parts can readily yield, the pain is not augmented to the same degree, as if the surrounding texture will not admit of expansion. Slight inflammation, therefore, under the latter state of things, not only adds vastly to the sensation of pain, but if not effectually and promptly relieved, tends rapidly to death and disorganization.

Now the pulp tissue is precisely so circumstanced by being enveloped within an unyielding bony case, so as to tend, under the slightest causes of irritation, to these most unfavorable results. When, therefore, this pulp tissue becomes exposed, from the progress of de-

cay, to irritation from external agents ; or where it has been laid bare in removing the decay for the purpose of filling the cavity artificially, the unfavorable consequences above enumerated are events to be apprehended by all intelligent observers, and almost as certain to be realized. More certain, too, to follow, where the pulp has been exposed and the cavities immediately filled, than where the filling has been omitted—in the latter case, it may chance not to meet with causes of irritation ; in the former, it must, almost always, be produced, notwithstanding the very absurd and crude notions which have been of late advanced upon this point, and that, too, from sources from which more just and sound views might reasonably have been expected to emanate.

It is not the writer's intention to go into a detailed account, here, of the objectionable and sometimes very serious consequences which are apt to flow from, and have often followed this character of derangement in the teeth, whether subjected to the operation of filling or not. It is sufficient to observe that they are of such serious import as to have taxed, at all times, the ingenuity and intelligence of the best informed in the profession, with the hope of being able to remove this opprobrium from the list of admitted imperfections in this branch of the medical art. Neither will he detail the numerous opinions and operations which have been, at various times, suggested and practiced, with the hope of avoiding or remedying the difficulties and sometimes serious evils by which this class of derangements is so frequently characterized. These interesting topics shall be reserved for a more detailed essay on this important and valuable improvement. It will be sufficient to observe, that by Dr. Hullihen's mode of treatment, the difficulties heretofore found to exist, are so effectually provided against, as to render the operation one of the most successful and satisfactory in the whole list of professional achievements. But it is not in the operation he recommends, that his only or chief merit consists, but in demonstrating, in the most conclusive and certain manner, that the internal pulp, exposed though it may be, whether by decay or the operator's instrument, can be preserved in a perfectly healthy state, and the whole bony texture of the tooth likewise, without any apprehension of the recurrence of those serious after-consequences we have already so pointedly alluded to. This most important practical fact he, and he only, has brought to light.

The doctor tells us, that in 1845, a case came under treatment where, in excavating the decay, in a molar tooth, for the purpose of filling the cavity, the internal pulp was exposed, and for particular reasons, it was necessary that the operation should then be completed. "I therefore," says he, "drilled a hole into the nerve cavity of the tooth, with the view of permitting the matter to escape, should the nerve suppurate, (a process I felt sure would take place very speedily,) and then plugged the tooth without reference to the pressure which the plug might make upon the nerve. Fifteen months after, this patient again called to have her mouth prepared to have a whole upper set of artificial teeth. The tooth operated upon fifteen

months before, presented a healthy appearance in color, &c. &c., and had never given her the slightest inconvenience. It was now, however, necessary to remove it in reference to the intended artificial set, and on opening the tooth, the pulp was found somewhat diminished in size, but in all other respects in a perfectly healthy condition, as was also the whole bony substance of the tooth."

As the grade of organization of this pulp tissue presupposes the ability of resisting, or recovering from injury or accident, irritation or inflammation, provided that the difficulty connected with this class of cases, (that of being enclosed within a hard bony case,) could be effectually provided against, he at once adopted the operation already detailed, as the most effectual mode of accomplishing what it was, in these cases, so essential to attain. For while it serves this purpose most satisfactorily, it likewise protects the pulp of the tooth from the injurious influence of external agents, the artificial perforation itself not being exposed to the causes of decay. Through this opening the vessels of the pulp would be relieved whenever, and to whatever extent, inflammation should supervene. It is in this way, and by this method of operating, that this most important object is attained, viz: that of preserving not only the color of the teeth themselves, but likewise the internal pulp in its perfect and healthy condition, in all respects as competent to, and perfect in, the performance of its functional offices, as if the tooth had always remained perfectly sound and healthy. This, in fact, is the crowning point of perfection, in this most invaluable improvement, long sought after, but never before could it be announced to the profession as it can now be proclaimed, an operation positively perfect and complete. Dr. Hullihen, having tested the matter very fully in his own practice, confirmed by ample facts and observations of his friend, Dr. Cone, of Baltimore, took the most effectual mode of giving it wide publicity, for the honor of the profession, and for the benefit of the public.

Dr. Gardette, of Philadelphia, to whom this operation had been early communicated, reports the results, in his own practice, to have been equally successful, and the writer of this paper, who has now performed the operation in every case of exposed pulp which he has lately met with, whether of recent or of long standing, provided there be sound substance enough remaining to be worth preserving, has been, in every instance, entirely successful.

Not only have the patients been exempt from any unfavorable symptoms after the operation is completed, but in every case the internal pulp has been preserved in its normal condition, and the natural and healthy color of the tooth itself retained.—*New York Medical Gazette for March.*

The treatment of exposed nerves by Dr. Hullihen's method of perforating the fangs of the teeth, as described in the preceding article, has received the name of "*Risodontropy*." In the *Boston Medical and Surgical Journal*, of October 20th, Dr. Miller, of Worcester,

Mass., describes a similar operation, which he claims originated with himself. With a view of remedying the defects of the ordinary methods resorted to in cases of exposed nerves, he says, nearly two and a half years ago, he "instituted a surgical operation which had been in contemplation for several months."

The first case, June 5th, 1850, was in the left superior central incisor. He says, "Having wounded the nerve in preparing the cavity for filling—about the eighth of an inch from the margin of the gum—with a small, sharp excavator, I made a straight puncture through the alveolus to the fang directly opposite its centre; then with a drill, about the size of the nerve, I drilled through the fang to the nerve, which, in this case, being small, was entirely amputated. It was the intention to amputate the nerve with a suitable instrument, in case it were not done by the drill. All sensibility between the opening of the pulp being cut off, the tooth was filled in the usual manner, and without pain." About four months after the operation, the patient "reported that there had been no pain, nor but little soreness, and *that* where the gum was punctured. An examination proved what was anticipated at the time of the operation, viz: a reunion of the divided nerve, showing that the recuperative energy of the nervous system exists, as well in the teeth as in other organs."

Case 2d, June 6th.—The right superior cuspidati and two bi-cuspid. Having amputated the nerve of the cuspidati, "a query arose as to what should be done with the bi-cuspid having *two* nerves. After a moment's reflection, the drill was carried deeper, cutting off both branches, and the teeth filled without pain." Having treated a few cases in this way, the doctor proceeded, in several instances, to remove the pulp from the nerve cavity after the amputation of the nerve, the results of which, he says, were equally successful.

The molar teeth, having several branches of nerves, presented difficulties which were obviated by another expedient—"that of drilling into the nerve cavity under the festoon of the gum, wounding the pulp as little as may be, then to cover the exposed part with a pellet of gold, made flat and hard, so as to prevent pressure, and leave the result to the *vis medicatrix naturæ*, and for whatever treatment the case might require." An improvement on this was found in "drilling a little nearer the margin of the gum, so as, in a bi-cuspid, to strike the outer branch near the pulp, slightly wounding it," this being done with more expedition, and with much less pain to the patient.

"The method which I prefer," he says, "and generally practice, is to insert the drill under the edge of the gum where the enamel terminates, and barely make an opening *to* the nerve, (with a smaller drill than is used for amputating,) wounding it as slightly as possible, then to protect the exposed nerve from pressure, and plug the tooth in the usual manner."

ART. LIV.—TREATMENT OF TIC DOULOUREUX BY LUNAR CAUSTIC
APPLIED IN THE ANTRUM MAXILLARE.

A few years ago Dr. S. P. Hullihen, in a paper read before the Ohio County Medical Society of Virginia, described several cases of Tic Douloureux which he had successfully treated with lunar caustic by applying it in the Antrum, &c. As this mode of treatment may be new to some of our readers, having been made public through the dental journals, which, we are sorry to say, too rarely reach the medical profession, we will here give it, as described by the Doctor in his first case :

“Having observed” says Dr. Hullihen “that certain diseased conditions of the antrum maxillare induced tic douloureux, and that in all such cases, painful paroxysms could be greatly soothed or aggravated by the kind of injections thrown into the antrum—that of all injections so employed, none had so distinct, so powerful, and so extensive an effect as lunar caustic ; and knowing, too, that lunar caustic had been sometimes applied over the eye-lids and brows, with the happiest effect in allaying pain and undue irritability of the eyes, I determined to try it in the treatment of true tic douloureux. I say *true* tic douloureux, a rare disease, emanating from some local cause either about the head or neck, in contradistinction to a *spurious* tic douloureux of the face, a complaint which is so frequently met with, and comparatively so easily cured ; but a complaint always induced by debility, malaria, or other causes of a character purely constitutional. * * * * *

“In the summer of 1844, Mr. J——, of Marshall county, Va., came to Wheeling, to obtain relief from an unusually severe attack of tic douloureux. He was about forty years of age, his occupation was that of a farmer, and his health good. The length of time he had been effected with the disease, I neglected to note down. The nerves involved were the first and slightly the second branch of the fifth pair. The paroxysms came on from touching the affected side—often while talking or eating, and very frequently without being provoked by either of the causes just named. The attacks were electric in their character, accompanied by sensations of a *tic*—a symptom never present, I believe, in ordinary neuralgia. The paroxysms were of about one minute’s duration, occurring many times every day and night ; and they were gradually becoming more exquisitely painful.

Treatment—I extracted the first molar tooth, it being decayed, and perforated the antrum by way of an alveolar cell which led directly to this cavity. The antrum was free from disease. Upon touching the outer wall of the cavity with the end of a probe, particularly if the probe were dragged over the surface, paroxysms of pain were in-

stantly induced. After the bleeding subsided, I washed out the antrum with a syringe, first with warm water and then with cold, and so, alternately, until I was convinced that warm water, in this particular case, had much agency in bringing on a paroxysm, and cold water as great an agency in allaying it. After the blood was thoroughly cleansed from the antrum, I threw into it, with a glass syringe, a solution of lunar caustic, (twenty-five grains to the ounce of water,) and there retained it for a few minutes, by plugging up the hole made in the jaw. The caustic had but little effect in any way. The next morning I increased the strength of the solution to fifty grains of caustic to the ounce of water. After taking up in the syringe about as much of the solution as the antrum would hold—the patient being directed to hold his head in a horizontal position, with the affected side down—it was injected into the antrum, and the opening stopped as before. In a few minutes the patient complained, first of a slight pain on the top of his head, then all over the side of his head, then over the eye, and finally in the antrum. The plug was now removed, and the solution suffered to escape into his mouth, his mouth being effectually protected by holding in it a solution of common salt.

By this time the effects of the treatment were visible. The veins of the affected side, particularly along the temple, were distended and elevated to a remarkable extent; tears streamed from the eyes, the flow of saliva was unusual; indeed, every secreting vessel of that side of the head appeared to be excited in the highest possible degree; yet the patient complained of but little pain, and that pain of a dull, benumbing description. The scalp, and indeed the whole side of the head upon which the first and second branches of the fifth pair of nerves are distributed, was sore to the touch; but the patient was entirely free from every symptom of tic douloureux. He was now allowed to return home, and directed to wash out the antrum with cold water once a day—to use the caustic injection once a week—and to return again in three or four weeks; which he did, and reported that he never had the slightest return of the disease after he left Wheeling; I saw him about five months since, and he still remained well."

[The Doctor's next case was in October, 1846, of upwards of seven years' standing—patient about sixty years old. Treatment and results similar to the preceeding. The third case, (of fifteen years' standing—patient seventy-five years of age,) was far more intractable. Treatment being but partially successful, and other means resorted to failing, the caustic was employed in substance, which in a pulverized state he blew into the antrum from a glass tube; it now proved successful. The fourth case was unsuccessful. In this, however, the third branch of the fifth pair of nerves was mostly involved, and of course could not be reached through the antrum. The fifth case, differing from the rest, is as follows :]

"Mrs. C——, of Short Creek, in this county, was taken sick about

the first of February last. Soon after the commencement of her sickness, she had a fearful spell of flooding, leaving her unable to arise from her bed for several weeks. During this sickness she often experienced a great aching in the back part of her neck, close to the base of the skull. At last her head had to be arranged with great care upon the pillow, to avoid this kind of suffering. About two weeks after she first felt this pain, she was suddenly attacked with *tic douloureux* along the temple and over the eye. The pain was of the most intense character. She was treated by her physicians with *tonics*, *blisters*, *morphia*, and a host of other remedies, for two months and a half, with but little or any relief. She was finally brought to Wheeling. I found, by pressure over the first cervical vertebra, great soreness, and by pressure on one particular spot, pain in the temple was instantly produced. I now applied lunar caustic over the painful region of her neck very freely. Next day she complained very much of the soreness occasioned by the caustic, but the pain in the temple and neck was not so frequent, nor half so severe. I now applied caustic over the brow and along the temple. The next day she was entirely free from all pain of a neuralgic character, and so she still remains."

Dated, Wheeling, Oct. 10th, 1848.

ART. LV.—THE JAWS IN CIVILIZED AND BARBAROUS RACES OF MEN.

Mr. Levison, in a paper in the London Lancet, alluding to "what appears to be one of the penalties consequent on a state of civilization," remarks,

"That the jaws of civilized man are more contracted than the aborigines of different countries usually spoken of as barbarous, or semi-barbarous; that in civilized nations, the physiognomy is well marked; that the contraction of the jaws causes the permanent teeth to be either jammed together, or else there are induced various kinds of malformation; and in both instances, there exists a predisposition for the teeth to become carious, or remote organs are implicated, often inducing much functional disturbance in the brain, spinalis and the chylipoietic viscera."

"The jaws of the African races, the South Sea Islanders, and some other barbarous tribes, form a half ellipsis; the lower, at its anterior portion, being a smaller curve than the upper, so that although the molars meet at their grinding surfaces when the jaws close together, yet the upper front teeth (including the incisors and cuspidati) shut over those beneath, and act as a pair of shears; and, as a first process, cutting the food into small pieces, prior to being con-

veyed to the grinding operation of the molar teeth. In the jaws of any of the races mentioned, (unless injured by their civilized brethren,) there are usually thirty-two teeth (the permanent set) arranged in a very symmetrical manner, giving ample space for each tooth, and thus preventing the *dentes sapientiæ* from being jammed against the coronoid processes in the lower, or forced too near the glenoid cavities of the upper jaw: whilst in the mouths of the most civilized people, the anterior portions of both are so contracted, as rarely to admit the proper arrangement of the incisors and cuspidati, without extracting the first bicuspid, on both sides and in each jaw. And so well marked are these peculiarities, that in a paper I read, "On the causes of the decay of teeth in civilized communities," to the members of the Brighton Royal Scientific and Literary Institutions, I ventured to state, "that if a number of national crania were placed promiscuously on a table, I would arrange them ethnologically according to their comparative degrees of civilization, merely by the form of their jaws and the position of their teeth."

It may be asked whether these differences can be satisfactorily explained? Are they the result of some positive laws, or merely isolated and accidental consequences? That I may not appear presumptuous, in attempting to answer these questions, I may premise that my experience is deduced from nearly thirty years attention to the subject, and from numerous facts which I have collected. The following inferences seem to be correct:—That the difference in the jaws of barbaric races and those of civilized nations, is caused by the observance or non-observance of the physical and organic laws during the period of the growth and development of the bodily organs; that the races of men with ample jaws and finely formed teeth had lived the greater part of their infancy, childhood, and youth in the open air; that they had freely exercised their limbs, and partook of a simple diet; and that their brains had not been fatigued and annoyed with lessons in crowded school-rooms during their early days; and when taken out for a walk, they were not moved by a drill master, but were allowed to act from the impulses of nature; that, in consequence of this sort of physical training, they had healthy appetites, and needed neither condiments nor stimulants. Head-aches and languor, they knew not, and when the evening sun declined below the western horizon, their previous fatigue procured for them healthy and refreshing sleep. In consequence of such obedience to the natural laws, their secretions were natural without being drugged with calomel. They had, therefore, neither rickets nor distorted spines; hence all their bodily functions were normal, and the organs of the chest, the abdomen and the mouth, were, in consequence, amply developed. And just because the converse of all this takes place in what is called "a state of civilization," the general stamina of the young is injured—their stomachs deranged—their brains rendered too irritable, inducing many affections, sometimes immediate and sometimes latent; and the mouth also becomes more or less implicated.

If the days of childhood were devoted to the goddess Hygeia, and

the perceptive faculties allowed to exercise themselves, by observing the wonders of art and the beauties of nature—then civilization would bring to all positive blessings, and a higher advantage co-existing with rude and good health."

ART. LVI.—MEDICAL AND DENTAL EDUCATION, &c.

The New York College of Physicians and Surgeons.—From an announcement dated March 1st, 1853, we learn that the New York College of PHYSICIANS and SURGEONS is to be in operation during the whole year, the plan of arrangement being to provide for instruction in the collateral and special branches of medicine, in addition to the usual course. We think this a good movement, and hope it will be sustained. We have never seen the propriety of medical schools lying idle two-thirds of their time, and have thought that the business of Preparatory and Special Schools might very well be carried on in the regular colleges. This feature is thus announced :

"The faculty of this institution have determined to establish a systematic course of instruction *throughout the year*. They believe that medical students can very profitably employ the whole year in medical study in the city ; devoting the summer to Clinical Medicine, Surgery, and Obstetrics, together with the study of special subjects, either not embraced in the sub-graduate course, or of sufficient importance to demand full elaboration ; and the winter to the ordinary didactic teaching by lectures, examinations, &c."

The Spring and Summer Course will embrace : 1st. CLINICAL TEACHING --three clinques a week, viz. Surgical, Medical and Obstetrical. 2nd. LECTURES ON SPECIAL SUBJECTS, of which there are ten mentioned, by as many lecturers. "It is the design of the faculty to make this spring and summer course form part of the regular instruction of the Institution."

This plan is similar to what we have heretofore insisted should and eventually would be adopted. In the present instance, however, the array of special subjects, would seem to be rather imposing, than altogether judicious. Some certainly have but slight claim to the rank of specialities, coming more properly under general heads, as a part of the "ordinary didactic teaching." We do not find Dental Medicine and Surgery provided for in the arrangement, although, calling into service nearly four thousand practitioners, four or five colleges, and as many periodicals, it ought surely to afford medical material for at least one lecturship. We greatly regret that the faculty when contemplating the creation of a Dental chair, should have been "scared off" by the clamor of the dental colleges !

For a full-year course something like the following, it occurs to us, might be adopted with advantage.

1. FALL SESSION. *Preparatory Course*.—The Physical Sciences as applicable to Medicine,—Physics, Chemistry, Electricity and Galvanism, Zoology, General and Comparative Anatomy, Odontology, Medical Botany, &c.

2. WINTER SESSION. *Regular Course*.—Medicine proper, Dissections, &c.

3. SPRING OR SUMMER. *Specialities*, (optional.) Clinical Medicine, Operative Surgery, Obstetrics, Ophthalmic, Dental and Aural Medicine, Diseases of the genito-urinary organs, &c., &c.

Students to be admitted to either course, if upon examination found sufficiently proficient in that preceeding it, and to be allowed in the specialities, the choice of other means, but not the *honors* in any without due evidence of qualification.

Such a course, (with the required private study and tuition,) it is believed would do much more in a *year* to make safe and judicious practitioners in general medicine, or any of its specialities, than is possible by the present mode, though the number of lectures were increased, and the collegiate terms extended to six months.

Professor Harris on Extension of Dental Education.—In our last we referred to the remarks of Prof. Harris in reference to the proposition for extending the Requirements of Dental Colleges, &c. This we did, not with the design of discussing it further, but to correct some erroneous impressions which he seemed to have fallen into, and which his article was very well calculated to convey to others. We now pass on to give him the benefit of the rest of his remarks.

As an "instance of injustice" to dental schools he refers to the "calculation" "which reduces the whole sum of medical instruction given in the Baltimore college to two, and in very many cases to *one* month." We will quote his remarks on this point entire, that if we have done "injustice" it may thereby be corrected, premising that our "calculation" was based altogether on data derived from the Requirements of the colleges, as most favorably set forth, and that we did not find the "preliminary month" *required*.

"He [we] omits altogether the very important preliminary month devoted to the infirmary and dissections; and loses sight of the fact that out of the two classes of *one* term candidates, to wit: graduates in medicine [or one course students] and dental practitioners, each will give the larger portion of their time to that in which they are most deficient. The graduate in medicine will apply himself to the specialty of dentistry, while the dentist can secure his full quote of two months medical instruction. But two months can no

more give the dentist his full share of medical knowledge, than can two months study of surgery make the medical student a perfect surgeon. Our colleges, dental or medical, do not claim to be omnipotent Jupiters, from which, Minerva like, springs forth young men, armed *cap-a-pied* and of full grown stature. A course of four times two winters, would fail to bring forth such prodigies. What our colleges profess to do for the faithful student is to prepare him to *commence practice.*"

This is beginning to talk like it. We hope soon to arrive at a common point, from which to set forth the claims and advantages of the colleges. One important ground of complaint was that they professed "*fully*" to "*prepare*" for the management of "*all* medical and surgical cases" in dental practice, while at the same time presenting the above extent of requirements as amply sufficient in itself to do this—*no other pupilage being demanded*, as by medical colleges—thereby tending to establish an erroneous and injurious impression in regard to the nature of our Art, its difficulties and resources. Perhaps we differ, however, as to what is needed to "*commence*" with, believing that in no calling more than this is it necessary that the practitioner begin *well* "*armed.*" We think Dr. Harris himself has heretofore inculcated the doctrine that "*mediocrity*" attainments are unequal to the discharge of its duties, &c.

He does not seem to regard a "*medical education*" very "*essential*" and says: "Doubtless the M. D., if well earned, would be a most desirable antecedent to the D. D. S., but equally so the A. B., or A. M. They are neither of them so far indispensable as to warrant dental colleges in demanding them as a condition of matriculation." So then, Medicine has no more to do with Dental Surgery than the Classics? and the dentist no more use for it than the lawyer, divine or school teacher! Thus the dividing line in the issue is pretty clearly defined. We suppose, therefore, no more need be said to the leaders of the "*progressive wing,*" and will only remind the professor that our proposition did not have in view the "*M. D.,*" but simply the information derivable from a (single) medical course, not regarding it important, that practitioners should have *more than one Doctorate*, (well earned,) as a guarantee to qualification in any one department of the healing art. Probably most of the alumni of dental colleges have themselves submitted to additional means of instruction, equal it may be to the one proposed, and it remains for them to determine what is, or ought to be the nature of the Degree therein dispensed, and what shall be its future character and value.

Favorable signs from the Medical Journals.—We are pleased to see, in the medical press, evidence of a just conception of the relationship

of Medicine and Dental Surgery—a branch hitherto well nigh ostracised by the general profession, because, forsooth, they did not comprehend its range and importance, or had not the skill to practice it, and so suffered it to pass into the hands of those whose ignorance at the time made it disreputable. The Charleston Medical Journal, in a notice of Prof. Bond's Treatise on Dental Medicine, pays the following tribute to our science and its cultivators :

"This branch of Medicine, which has but recently assumed the rank of a special science, has of late years received many valuable contributions, which place it on a footing with other departments of the healing art ; and to American Dentists are we mainly indebted for the arrangement and classification of isolated facts, which appeared in a systematic form in the first edition of this work," &c. "The work cannot fail to be acceptable to the profession at large, connecting as it does Dentistry to Medicine, and unfolding to the practitioner many facts and principles concerning the teeth which it is important for him to know."

The medical journals generally have begun to bestow upon this department considerable attention. For the past year a large share of space—sometimes from twenty to thirty pages in a single number—has been accorded to matters relating to dentistry in the common acceptance of the term. But "dentistry" as practiced by the profession generally, is confined chiefly to the *outskirts* of the province to which it belongs, and which, embracing, as it properly does, the entire dental system, with its varied and complicated connections, constitutes a wide field in medical science.

B. W.

ART. LVII.—REPLACEMENT OF DISLOCATED TEETH, WITH A PLAN FOR THEIR RETENTION.

The *American Journal of Dental Science*, for January, contains a communication on this subject, from the pen of Dr. C. T. Cushman :

"That dislocated teeth," he says, "have been restored to their sockets and retained, in some cases, for many years, subserving their usual functions in a manner far superior to any artificial substitute, and without inconvenience or detriment to local or general health, is not problematical." In confirmation of this, he refers to the practice of the elder Gardette and Dr. Bostick, of luxating and replacing teeth ; and says, "the utility of the operation, judiciously performed, has been virtually demonstrated, to my own observation, in several cases which I have met with." Among these the case of a mechanic, aged about thirty, is mentioned, whose teeth were knocked out by the glancing of a kind of chisel which he was holding with a pair of

tongs, over an anvil, upon which an assistant was striking with a sledge hammer. "The inferior lip was severely cut, horizontally; the superior incisors, right, central and lateral, were broken off at the neck. In the *inferior jaw*, on the right side, the crown of the cuspidatus was broken off about midway, an oblique fracture, leveled inwards; *the right, lateral and central incisors, were completely ejected from their sockets.* About an hour afterwards, they were replaced in their sockets, and very soon became firm and useful. This was six years ago; during which time they have given no trouble. Their color is good, and one could scarcely distinguish any abnormal change in them in this respect. The surrounding gum is firm and healthy, and there is, apparently, no discharge of diseased secretions."

Another case is mentioned as an instance of failure of the operation. "A little girl, aged about nine years, fell out of a swinging hammock, and struck her mouth against the edge of a piazza floor. The inferior lip was lacerated horizontally, the two superior centrals and temporary cuspidatus of the right side, entirely dislocated. About an hour after the accident they were replaced and retained by silk ligatures,"—being subsequently pressed into the sockets and retained by a piece of soft wood, cut to fit the incisive edges, and secured to the back teeth by ligatures. Severe inflammation followed. "The replaced teeth, for six weeks, continued irritable and sore. No nourishment could be taken excepting liquids; the patient gradually became weaker in consequence, and subject to syncope, &c., so that, at the expiration of this time, it was deemed imperative to remove them. So soon as this was done, she steadily regained her health and strength." The doctor says, "The error in replacing the luxated teeth, in her case, was in the fact that *the roots were not fully formed*, and however they might have united with their sockets in a membranous connection, the progress of *growth*, of course, was forever destroyed."

"The most favorable cases for replacement I should deem to be those of adult, healthy persons—not subject to mucous, glandular, tubercular or inflammatory disease; having hard teeth, firm gums, and healthy saliva. The teeth—the ten anterior of both jaws, or even a molar, if luxated by accident, as in case of attempt to extract another." "In replacing luxated teeth, I would be governed by four primary considerations.—1. That there should not be extensive fracture or splintering of the alveolus. 2. That the periosteum of the luxated tooth be in a healthy condition—which also implies the vitality of the *tooth* up to the time of the accident—that it be not *lacerated* while out of the socket. 3. That it be replanted within an hour. 4. That it be immovably and uninterruptedly retained *in situ*, until the ruptured parts unite by healing."

The following is his mode for "*securing the replaced tooth.* The simple thread or wire ligature thrown around it, and secured to an adjoining one, cannot be made sufficiently steady to give *repose* to the replanted tooth, and allow it to become fixed—neither does it provide against concussions and shocks from the natural occlusion of the

jaws. My treatment in such case would be, first—to take an impression of the mouth in very *soft* wax in the usual manner. Next, after syringing out the sockets with warm water, and carefully washing the tooth in the same, press it in its socket and secure it by a silk ligature. Then proceed to strike up a metallic *plate*, and adjust clasps to it properly, as for sustaining one of artificial teeth. Next adjust and solder on a concave, cylindrical backing, to embrace and support the replanted tooth. In this backing or stay, holes may be punched to receive the silken ligature, which is to pass around the tooth and be tied. Now, to guard against any concussions or shocks from occlusion of the jaws, the *plate* will be the best means of sustaining pieces of India rubber, or metallic sacks, or thimbles, to interpose between the antagonistic molars, and sustain all the pressure arising therefrom. The plate and apparatus may be carefully removed occasionally as necessary, for the purpose of cleansing, and the ligature renewed. By such means, the tooth may be kept perfectly steady until the membranes shall unite by the ‘first intention.’ Unless this end is accomplished, the operation may be regarded a failure. To this end of speedy union, it is important to subdue, as much as possible, all general and local inflammatory symptoms—as by bleeding, purging, astringents, lotions, &c. The diet should be in the form of broths, soups, and soft food, to avoid irritation in mastication.”

NITRIC ACID IN RAIN WATER.—M. Barral has lately found, after very careful and well conducted experiments, which stretched over more than six months, that the rain water collected at Paris contains appreciable quantities of nitric acid. This discovery has been confirmed by a committee appointed by the Academy of Sciences, and composed of Messrs. Dumas, Boussingault, Gasparin, Regnault and Arago. It is supposed that the presence of nitric acid in rain water will explain certain hitherto ill-understood telluric phenomena, and lead to some practical applications. It is due to Dr. Bence Jones, of St. George's Hospital, to say, that he had already pointed out the fact, as to the rain water collected at Kingston, (Surry, Melburg Dorset, the neighborhood of Cork, and in London.) Dr. Bence Jones was herein in opposition with Leibig, who has denied that rain water contained appreciable quantities of nitric acid.—*London Lancet*.

MISCELLANEOUS NOTICES, &C.

Clinical Reports on Continued Fever, based on analyses of one hundred and sixty-four cases : with remarks on the management of continued fever, the identity of Typhus and Typhoid fever, Relapsing fever, Diagnosis, etc. : to which is added a memoir on the transportation and diffusion by contagion of typhoid fever, as exemplified in the occurrence of the disease at North Boston, Erie county, N. Y. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine, in the University of Buffalo, and Editor of the Buffalo Medical Journal, octavo, pp. 390—DERBY & Co., Publishers, Buffalo, New York, 1852.

The author will please accept our grateful acknowledgements for this very valuable and highly acceptable volume. We have read it with diligence, and confess ourself not only pleased, but profited by the perusal. Indeed we have seldom seen a better specimen of professional erudition and indefatigable research. It presents to our mind another proof of the incalculable benefits resulting from State Medical Societies. To those who have not seen the work, it may be interesting to state that the following circumstances led to its preparation and publication:

"At the annual meeting of the New York State Medical Society in February, 1850, the scientific subject which elicited most discussion was the identity or non-identity of the forms of fever now commonly known as *Typhus* and *Typhoid*; and a committee was appointed, on which the Author was placed as Chairman, to collect facts relating to Continued Fever, and report at the next annual meeting. The assignment of this duty led the author to examine the cases, occurring under his own observation, the histories of which he had recorded, and finding, the number considerable, he concluded to subject them to numerical analysis; but finding, in the prosecution of his task, that the results would not well admit of being orally submitted at the meeting of the Society, and also, that they would occupy more space than could be conveniently appropriated to them in the annual volume of transactions, they were published in successive numbers of the Buffalo Medical Journal, and subsequently presented in that shape as a report to the Society."

Owing to the fact that these several reports were thus published in consecutive numbers of the Buffalo Med. Journal, during the years 1850-51-52, copies of which were issued and laid aside for the completion of this edition, there is not that compactness, and concatenation of affinitive idea which we would have expected of the author, had he prepared the volume for the press under other and more favorable circumstances. The want of this connection, however, is, to some extent, remedied by the well arranged table of contents, which refers the reader to the same sections in the different reports. And should another edition be called for—and we hope forty may be—the author will doubtless remove this slight inconvenience.

We at one time selected, and intended to have made, a number of extracts from this work, and also to have noticed elaborately the peculiar views of the professor, in contrast with those of other distinguished authors of the present day ; but owing to the preoccupation of the pages of the Journal by contributors from abroad, we conclude this notice by saying, there are probably very many physicians who will not like the work, because the author does not deal in rhetorical flourishes or hyperbole, but in *facts and figures*.—These systemized facts and figures, however, are what scientific medical men like, and must have, and without which, in their application to general disease, the title of Dr. is as empty as a sounding brass or a tinkling cymbal.

PROFESSOR FLINT'S reports are adverse to the identity of Typhus and Typhoid fever, and we know of no instance, in which an American has so faithfully and patiently labored to elucidate the varied phenomena of the obscure types of Continued fever. Many, upon reading the singularly formidable array of facts developed by the author, will, no doubt, become established in the views taken by him, with reference to the Typhus, Typhoid, and Relapsing forms of Continued fever. So conclusive are his facts and arguments, that we, indeed, are almost, though not altogether, persuaded to abandon a theory embracing the idea that the real or supposed types of Continued fever are identical. We are, at any rate, glad to see this valuable contribution to medical literature—emanating as it does, from one whose powers of investigation, together with his minute, perspicuous and graphic style, entitles him to take rank at once with such men as Louis and Chomel. We with pleasure commend the volume before us to the attention of all those who desire to possess a complete, reliable and scientific history of Continued fever. And having, for a year, known something of the difficulty in the way of eliciting information from our professional brethren, we could wish that every Tennessee physician would make this the janitor of his office for the next three months. It can be obtained by application to F. Hagan & Co., Market street, Nashville, Tenn.

W. P. J.

Transactions of the Kentucky State Medical Society, at their meeting held in Louisville, on the third Wednesday of October, 1852. Louisville, Ky. Published for the Society by Webb and Levering, Main street, 1853. 8vo., pp. 333.

This Publication comprises the several Reports submitted to the Kentucky Medical Society, at its second annual meeting, together with the Record of its Proceedings, and the Annual Address of the President, Dr. Sutton. The subjects of the Reports are as follow:—

1. Vital Statistics ; 2. Medical Ethics ; 3. Obstetrics ; 4. Registration ; 5. Surgery ; 6. Indigenous Botany ; 7. Epidemics ; 8. Case Book.

The President's address relates to the *duties* of the Society, *first*, to the profession ; *second*, to the community. It is brief, but to the point, and contains, in a condensed form, valuable information in re-

lation to the condition of the profession, with excellent suggestions for its advancement. The Reports reflect great credit upon the several committees, and cannot fail to recommend themselves favorably to the profession. That upon Vital Statistics is of peculiar interest, urging, with great force, the claims of this important subject, and presenting many facts in relation to the mortality of the State, which, although "but the gleanings of a single year," are interesting and valuable in themselves, and destined, we hope, to lay the foundation for a collection of material upon this subject, which, in a sanitary point of view, may prove of incalculable benefit to generations yet unborn. A lithographic map accompanies the report, exhibiting at a glance, the relative mortality of the several counties or portions of the State. If this step be followed up by other State Societies, while at the same time, means are taken to ascertain the geological and meteorological character of different sections of country, Medical Topography may ere long constitute a *Science* in Medicine of the first importance. We have not space to allude to the reports which follow, much less to make abstracts from any portion of them, as we would like to do, and can only mention that upon Surgery, by Dr. Gross.—This ample report comprises over one-half of the volume before us, and does honor to the learning, research and industry of its distinguished author. It takes up "the subject of Kentucky Surgery in its entire range, commencing with the earliest period of its history, and bringing it down to the present moment." The many cases presented, relating to the different branches of Surgery, and appertaining to nearly every part of the body, will be hailed as invaluable an acquisition to practical medicine and surgery, as the historical sketch to medical literature.

If the Publication before us be an earnest of the future labors of the Kentucky State Medical Society, we must believe that she is destined to lead the van in the progressive march of Medicine in the Great South West.

B. W.

The Principles of Botany as exemplified in the Cryptogamia, by Harland Coultas.—We tender the publishers, Lindsay & Blakiston, of Philadelphia, our acknowledgements for a copy of this contribution to Botanical Science, transmitted through F. Hagan of this city.—Of only 94 pages, yet treating of an interesting and extensive department of Botany, it well illustrates *multum in parvo*. Directing his attention to this division of the field of nature, our author finds enough in the Cryptogamic plants to illustrate the principles upon which the vegetable forces act. Thus he draws his deductions from the lowly moss with its scarcely visible sporangia, peering just above its equally minute and velvety foliage, through each intermediate variety, up to the majestic tree fern of the sunny South, garlanded with its wreath of pendent fronds; or from the greenish scum of vegetation on stagnant pools, to that pride of aquatic plants, the queen of the water-lilies, the *victoria regia*, as she floats upon the billows of the mighty Amazon. This class of vegetation also derives addi-

tional interest from having descended through each successive change, from earth's primeval forests, many of its congeners being found entombed between masses of shale and sandstone, as well as composing the now-lifeless masses of coal. We recommend this little volume especially to the student of Botany.

R. O. C.

The Proceedings of the Third Annual Session of the Indiana State Medical Society, held in the city of New Albany, May, 1852, did not come to hand until a few weeks ago; as professional news, therefore, a thorough review and display of its contents, would not likely be very interesting to our readers. At this meeting, composed of about sixty active members, Dr. Mears succeeded Dr. Clapp in the Presidency of the Society, and acknowledged the compliment, as a matter of course, before taking his seat. After hearing reports from Dr. W. T. Cornett, on the *Practice of Medicine*, Dr. Jno. Sloan on *Surgery*, appointing committee-men on important subjects, and electing Dr. J. H. Brower to preside at the next meeting, Drs. Byford, Davidson and others, Vice Presidents, Recording and Corresponding Secretaries, Treasurer, Librarian, and Delegates to the American Medical Association, &c., the Society adjourned to meet in Lafayette, on the 3rd Wednesday in May.

W. P. J.

The British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery.—The Jan. No. of this able Review has been received. The enterprising publishers, S. S. & W. Wood, deserve the thanks and patronage of the medical profession, for the very low rates at which they are furnishing this valuable journal.

J. W. K.

The Transactions of the American Medical Association, instituted 1847, Vol. v., Philad., 1853.—Such is the title of a very valuable volume furnished us by the Com. of Publication, through W. T. Berry & Co., of this city. Did our limits allow, we would be glad to present our readers with an entire synopsis of its valuable contents, but our space will only admit of a notice of a Report on the Medical Botany of the U. S., by Dr. Clapp, of New Albany, Ind. This Report embraces a systematic catalogue of the indigenous and naturalized, flowering and filicoid, (exogens, endogens and acrogens,) medicinal plants of the United States. It contains a well arranged mass of information, collected from no less than seventy-four authorities, as well as the result of personal research. Of the 556 plants described, 476 are indigenous to the U. S. The arrangement is based on the natural system, to the perfecting of which, Drs. Torrey and Gray have directed all their labors. These indefatigable Botanists have contributed greatly to the developing of the American Flora, and classifying it. But still more remains to be done. Our country embraces every variety of climate, from the mercury-freezing regions of the north, and of high altitudes, to the sunny southern plains—from the home of the hardy moss and stunted pine, to luxuriant groves, where grow in their native wildness the orange and the lemon. Whole regions yet

remain unexplored, as well in the lap of civilization itself, as in the unreclaimed forest.

The analytical processes of the distinguished Liebig in organic chemistry, have directed scientific research to this study, and the consequence is, that more new substances have been discovered, and more new medicinal principles introduced to the notice of the profession, during the last ten years, than at any previous period. The ardor and interest displayed in the investigation of this subject, by the National Medical Association, the head and front of the profession in the United States, should be diffused throughout all its members.

R. O. C.

The Virginia Medical and Surgical Journal, Edited by George A. Otis, M. D., and Howell L. Thomas, M. D., is a new and neatly printed monthly, of eighty-four pages, price five dollars.

We are not of those who with holy horror announce the appearance of every new enterprise having reference to the melioration of suffering humanity; but regarding that portion of our profession which will most likely patronize a "catholic work, the organ of no sect or party, the interests of which are those of the whole profession," as generally competent to judge of the merits of things of this kind, it becomes neither our province or pleasure to object. We indeed hail, with unaffected pleasure, the appearance of every such Journal, and heartily welcome the editors to that sphere of usefulness which they so honorably seek, and to whatever of fame and emolument the profession in its wisdom may award them. W. P. J.

The American Journal of the Medical Sciences, edited by ISAAC HAYS, M. D., Surgeon to Wills' Hospital, &c., &c.

The April number of this mammoth quarterly has been received, and in addition to its usual immense amount of well selected matter, the present volume contains original contributions from between forty and fifty members of the profession.

If any of our readers desiring the work, and all ought to have it, will enclose FIVE dollars to the address of the enterprising and world renowned publishers, BLANCHARD & LEA, *Philadelphia*, they will receive it, together with the *Medical News and Library*. Postage on both prepaid.

W. P. J.

American Journal of Science and Arts, for March, 1853, is on our table. The editorial corps is composed of Professors B. Silliman, B. Silliman, Jr., and James D. Dana, aided by Dr. Walcott Gibbs, of N. Y., in Physics and Chemistry, and Prof. Asa Gray, of Cambridge, in Botany. This Journal was established in 1818, by Prof. B. Silliman, and now in its 35th year, he has associated with him a corps of our most scientific men. It well deserves a place in the Library of every student of science; in fact it is indispensable, if we wish to keep pace with the rapid progress now being made in the scientific world.

R. O. C.

American Journal of Pharmacy, edited by William Proctor, Jr., for March was received just after our last issue. We regard it as one of the most valuable Journals in the United States, while in its own department it stands unrivalled. This Journal affords evidence of its intrinsic value from the length of time it has been in existence, having just completed its 24th year. It is published bi-monthly, at \$3,00 a year—in advance of course.

R. O. C.

Dr Felix Robertson's article on Fever, will be read with universal interest by his numerous professional friends throughout the South. It is perhaps proper to say, that when written, it was not designed for publication as a separate article, but to assist the committee in making their report. The Dr., however, has kindly consented to its publication, and we therefore lay it before our readers in its present form.

W. P. J.

Lithographic Maps.—Those interested in medical topography—and what intelligent Physician is not?—will see with pleasure the map of Professor J. M. Safford in our present number. We are glad to be able to announce that Prof. S. and one of the editors of this Journal have determined to enter, within a few weeks, upon a survey of East and West Tennessee, with a view to the preparation of similar maps of those divisions of the State.

As in the locality, peculiar types, and delineations of disease, these *plates* will be very valuable, and especially in illustration of our report upon the history of fevers of Tennessee, we suggest that those receiving will preserve them for future reference.

W. P. J.

R. L. Scruggs, M. D., one of the most elegant and popular contributors to southern medical literature, has become corresponding editor of this Journal from Shreveport, La.

Our readers will now see that we are prepared in good faith, to redeem our promise, (i. e.) that we would have such an organization as would well and truly represent the varied topography and diseases of the different sections of this great Valley. Without further remark, we introduce Dr. S. to our friends, that he may speak for himself:

"I doubt my ability to carry out fully your views upon the subject, and very much fear that you and the readers of your Journal will be disappointed; but should you think differently, I shall feel highly complimented, and grant you the liberty of placing me in the position you propose; promising at the same time, to sustain myself and the Journal as best I can."

From New Orleans.—If Dr. Frank. Ramsey, of Knoxville, is one of your new associates, I congratulate you upon the acquisition.

E. D. FENNER.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
JULY, 1853.

DEPARTMENT OF MEDICINE AND SURGERY.

ART. LVIII.—SYNOPSIS OF THE PROCEEDINGS OF THE TWENTY-FOURTH ANNUAL SESSION OF THE TENNESSEE MEDICAL SOCIETY, CONVENED AT NASHVILLE, MAY 4th, 1853.

The annual session of this society was numerously attended. After being organized by the enrolment of the names of the members present, the President delivered the annual address, which was replete with sound thoughts and able arguments.—Subject, Retrospective, Perspective and Prospective views of Medicine.

This being the session for the biennial election of officers, the following members were unanimously elected for the ensuing year :

DR. FELIX ROBERTSON, *President*.

DR. E. B. HASKINS, *Vice President*.

DR. JOHN W. KING, *Rec. Secretary*.

DR. R. C. FOSTER, *Cor. Secretary*.

DR. WM. P. JONES, *Treasurer*.

The reports of special committees being next in order, the several chairmen reported progress—with the exception of Dr. Richard O. Currey, chairman of the committee on the Adulteration of Medicines, &c., who proceeded to read his report, which was received and referred to the committee of Publication.

Reports of cases being next in order,

Dr. Park, of Franklin, read a paper describing a set of instruments used by him in performing the operation of *Fistula in Ano*.

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Dr. Ransom, of Rutherford, read a paper descriptive of an interesting case of paralysis.

Dr. Watson read the report of a case furnished by Dr. Smith Bowlin, of Bedford, on Fallopian Pregnancy.

Dr. Knight, of Rutherford, reported a case of gun shot injury of the leg, resulting in a chronic tumor, complicated with hemorrhage.

Dr. Buchanan related a case of injury of the chest, in which there was a protrusion of the lung through a cut dividing a portion of the *Pleura Costalis*.

Dr. R. C. Foster offered a resolution which was adopted, that a committee be appointed to memorialize the Tennessee Legislature, at its next session, in reference to the manufacture and sale of secret medicines, so as to secure the passage of a law requiring the recipe of all such to be filed with the Secretary of State—to which Dr. Haskins proposed the following amendment :

That this committee confer with the East and West Tennessee Societies, to secure their co-operation, and that they report progress to this society at its adjourned meeting in November. Drs. Foster, Lipscomb and Whitaker were appointed as the committee.

A tribute to the memory of Dr. Junius Smith, of Rutherford, who departed this life since the last annual session, was adopted, and ordered to be spread upon the minutes.

The following subjects were submitted to special committees, to report thereon at the next annual session :

1. On the History of Continued Fevers of Tennessee. Dr. Wm. P. Jones, of Nashville, chairman.
2. On the History of Surgery in Tennessee. Dr. B. W. Avent, of Murfreesboro, chairman.
3. On the History of Obstetric Surgery in Tennessee. Professor Watson, of Nashville, chairman.
4. On Epidemic Diseases of Tennessee. Dr. Haskins, of Clarksville, chairman.
5. On the Medical Botany of Tennessee. Dr. Richard O. Currey, of Nashville, chairman.
6. On Statistics of Extra Uterine Pregnancy. Dr. R. Martin, of Nashville, chairman.
7. On the Medical Literature of Tennessee. Dr. D. W. Yandell, of Davidson county, chairman.
8. On the Medical Biography of Tennessee. Professor W. K. Bowling, of Nashville, chairman.

A resolution was adopted appointing a committee—Dr. P. Ford, chairman—to memorialize the Legislature in reference to the registration of births, marriages and deaths.

A committee was also appointed to prepare a Case Book.

On motion of Dr. King, it was recommended to the physicians in the different counties of the State to form county societies.

Dr. Yandell offered the following preamble and resolution :

In order to encourage original research,

Resolved, That a prize of \$50 be awarded for the best original, practical or experimental medical essay, to be submitted to a committee and reported upon at the next annual session—to which Dr. Wilson offered an amendment :

That for the second best essay a prize of \$25 be awarded—all of which were adopted.

Dr. J. J. Abernathy, of Murfreesboro, was continued as Orator for the session of 1854.

The President appointed the following members to report cases :

Dr. Davall,	Nashville.	Dr. Wendell,	Murfreesboro.
" Woodward,	"	" McCullough,	"
" Maddin,	"	" Knight,	Rutherford co.
" Robb,	"	" Ransom,	"
" Foster,	"	" Park,	Franklin.
" Evans,	Shelbyville.	" McDaniel,	Clarksville.
" Whitaker,	Montgomery co.		

The society agreed to hold an adjourned meeting on the second Wednesday in November next, in the city of Nashville, at 10 A. M.

The President was invested with power to appoint the proper number of delegates to the National Medical Association.

After passing a vote of thanks to the City Council for the use of the City Hall, the society adjourned—having been in session three days—its deliberations marked with an unusual degree of interest, to meet again on the first Wednesday in May, 1854, in the city of Nashville.

ART. LIX.—CASE OF CEREBRAL DISEASE.

Read before the Medical Society of Tennessee. By M. RANSOM, M. D., of Rutherford county Tennessee.

Aug. 9th, 1852. Saw, in consultation with Dr. S——, Julia H., aged about ten years.

About the 20th of last month, after complaining for a day or two of headache, she was very suddenly attacked with partial paralysis of the left side of the body. She soon had high fever, with violent pain of the head and some delirium. By mercurial cathartics, refrigerant diaphoretics and local depletion, she was partially relieved, but again grew worse. About eight days ago she began to have clonic and tonic spasms of the muscles, generally, which have continued paroxysmally to this time. Some of the muscles of the lower limbs are permanently contracted. The left leg is rigidly extended, while the right is closely drawn to the body, and she seems to suffer excruciating pain when any attempt is made to change their position. The right pupil is natural, while the left is widely dilated. Has not been able to articulate since the 6th; swallows with much difficulty; skin hot and dry; pulse 120 and rather small; tongue coated yellow; bowels sluggish; is slightly ptyalized.

Treatment.—A blister to the whole occiput, and ammonia linament to the spine; to take $\frac{1}{2}$ oz. of castor oil, and afterwards 1 gr. of calomel three times a day, or as often as may be necessary to keep up ptyalism. A teaspoonfull of spirits of nitre every two hours.

11th. Less fever; much the same otherwise. Blister drawn well, spine red and sore; bowels moved only once. Ordered purgative enema; continue calomel and add camphor to spirits of nitre.

13th. Paroxysms or spasms not quite so frequent or long continued; castor oil and injections have failed to move the bowels; ptyalism increasing. Suspend the calomel, and give $\frac{1}{2}$ a drop of croton oil in $\frac{1}{2}$ oz. of castor oil, every two hours, until bowels are moved, assisting it with enema.

15th. After taking four doses of the purgative, the bowels were freely moved. More quiet; very little clonic spasm now, but the tonic contractions remain the same. Left side is completely powerless. There is now such an acute, morbid sensibility of the surface of the limbs, that she cannot bear the contact of the lightest covering. Reapply the blister, extending it over the cervical spine.

18th. No fever; swallows better; bowels easily moved. Has incontinence of urine. Dress the blister with mercurial ointment, and keep the bowels open with oil.

21. Improving in general health. The paroxysms of spasm have entirely subsided, but the limbs remain contracted and paralyzed as before. Reapply blister, and give bichloride of mercury three times a day, (one twentieth gr.)

25th. The morbid sensibility of the surface of the limbs is so far diminished as to allow of their being covered. Has a bleeding sore on the sacrum; incontinence still continues. Continue the mercury and 10 drops of tincture of cantharides, three times a day.

Sept. 1st. General health tolerably good; she recovered her speech imperfectly on the 27th; can now protrude the tongue, the left side of which is palsied; is relieved of the incontinence; sore on the sacrum soon healed after removing the pressure. Continue same treatment and iodine and mercurial ointment to the old blistered surface.

6th. General health good; is gaining flesh rapidly, but the improvement in paralysis and muscular contraction very slow. I should have mentioned before that there has as yet been no want of sensibility of any part of the surface. Take in addition to the bichloride of mercury, one twentieth gr. of strychnine, three times a day.

14th. After taking the strychnine two or three days, it produced a trembling and wildness, that induced the parents to discontinue it, but since then, the improvement has gone on much more rapidly than before. The right leg can now be extended. Continue it in one twenty-fifth gr. doses. Frictions to the spine and limbs.

Nov. 1st. The patient has gradually acquired tolerably good use of all the limbs, but the left foot remains drawn backwards so as to impede her walking. The left pupil has not yet contracted to its usual size. Discontinue medicine except laxatives, and keep up the frictions.

March 30, 1853. Patient has been apparently well for three months. Any thing causing an afflux of blood to the head, as being too long in a stooping position, causes the left pupil to dilate.

This case is interesting as one exhibiting at once the various effects of a morbid condition, in a different degree, of opposite sides of some portion of the nervous centres, as well as affording additional evidence of the value of mercury in the active stage of such affections, and the efficacy of strychnine in restoring nervous energy. Although the manner of attack would lead us to suspect hemorrhagic extravasation, yet the prominent muscular contractions and other symptoms, seem to point out inflammatory softening as the true pathological cause.

Dr. Haskins differed from the reporter in his diagnosis, believing that the true pathological condition of the case was a cerebro-spinal meningitis, rather than acute *softening*. Dr. H. referred to several cases, which he supposed to be similar to the one under consideration, characterized by shivering torpidity of the sensorial functions ; great soreness of the whole surface, supposed by the attending physician to be of a rheumatic character ; pupils at first dilated and contracted during the hot stage, muttering in sleep, insensibility, surface excruciatingly painful to the touch. The remedies employed, general and local abstraction of blood from the spine by cups, blisters, and tartar emetic internally. In the progress of the first case, pus appeared in the anterior chamber of the eye, though the general aspect of the case was more encouraging. The tartar emetic was then withdrawn, aperient remedies given, and the room kept dark ; subsequently a severe pustular eruption occurred over the whole surface of the body, probably due to the previous use of the tartarized antimony. This patient recovered, though with the loss of vision and atrophy in one eye. In another case, a little boy, characterized by a similar train of symptoms in the early stage, iritis supervened, and the patient lost an eye, from effusion of inflammatory lymph and agglutination ; in the course of the disease, vision was destroyed in the other eye, accompanied with atrophy. Dr. H. declined operating in consequence.

Dr. Ransom, in reply, stated that the phenomena observed in his case differed in several respects from the cases related by Dr. Haskins. In the first place tonic spasms occurred on one side of the body, while clonic spasms affected the opposite side ; nor was there any symptom indicating organic lesion previous to the supervention of the paralysis, which was sudden, and apparently unwarranted by the previous symptoms in the case, which had been so obscure as not to suggest a suspicion of the existence of a cerebro-spinal meningitis.

Dr. Haskins remarked, in reference to the treatment adopted, that he questioned the propriety of employing strychnine in the treatment of acute inflammatory disease of the brain and its meninges, as the tendency of the medicine is to exalt the physiological action, or function of the brain and nervous centres, exaggerating or intensifying, rather than modifying innervation. (The remarks of Dr. H. on this point were based on the assumption, that Dr. R's was a case of cerebro-spinal meningitis.)

Dr. R. Martin related several cases similar to those detailed by

Dr. Haskins, and inquired if there was not a condition of the cerebro-spinal system, following acute inflammatory action, that would justify the employment of strychnine ; this at least was his experience.

Dr. Watson referred to a number of cases in his own practice, in which there was recurvation of the spine, contraction of pupils, stupor and acute sensitiveness of the surface. He believed this last symptom occasionally happened in winter fever.

Dr. Yandell asked for a definition of winter fever. Dr. Watson replied that winter fever was an inflammatory fever, a synocha, not always involving organic inflammations, which might be only accidents.

Dr. Martin remarked that the excessive tenderness of the skin was more decided in several other cases which he related, in which there was severe pain in the head, recurvation of spine, and great restlessness ; in one of the cases in which there was violent pain in the head, the patient desired to be moved frequently, though screaming at each effort to change the position. In another case, (a girl of 15,) the attack was ushered in by a cold stage. In a third case there was an acutely painful sensitiveness of the surface, pupils at first contracted and then dilated. The case was treated with cups, blisters and general bleeding—(died.)

Dr. Watson had seen similar cases in Rutherford county, in several of which there was no increased sensibility of surface. He believed it was difficult to appreciate the amount of sensibility in brain diseases, as the patient in such cases naturally dreaded to be touched or moved. He thought they were only cases of common inflammatory fever.

Dr. Ransom remarked that at first he had suspected that the case reported by him was one of cerebro-spinal meningitis, but that upon a more mature consideration of the history, symptoms, &c., he had decided differently. The girl was able, up to the time of the paralytic seizure, to go about ; there were no rigors, no symptoms of a chill, no sickness of any kind preceding, except pain in the head. He thought there was usually more decided prostration in cerebro-spinal meningitis, than was observed in his case.

Dr. Maddin did not regard the cases related by Drs. Watson and Martin to belong to the same type as those of Drs. Haskins and Ransom. He had known of four anomalous cases in North Alabama, that had some features of resemblance with the one that Dr. Ransom had described. Paralysis was a leading feature of all of them, but no very great sensitiveness of surface—this he did not consider characteristic, but varied according to the malignancy of the attack

Whatever was the etiology of such cases, the noxious agent acted on the principle of narcotics, first stimulating sensibility, then blunting it, according to the impressibility of the nervous centres, and the quantity of the impressing agent.

The first case—paralysis of one side, alternating with hysterical paroxysms—considerable cerebral disturbance, other symptoms, such as are common to the typhoid fever of that section of country, which was quite prevalent at the time. This case was treated with *blue pill* in the early stage, with cupping to the spine and temples, cold to the head, blister to the spine, camphor juleps and other supportants, in the latter stage. This patient eventually recovered after a protracted illness. This was a young lady about fifteen years of age—previous to the attack, she had been quite healthy and exceedingly fleshy. Since her recovery, she is disposed to be of rather spare habit.

2d Case. A young lady of about twenty years of age, generally enjoyed fine health. Had slight indisposition on Wednesday night; supposed she had had a chill—slight fever on Thursday—took, of her own accord, 20 grs. of calomel. Friday, no excitement of pulse, but partial paralysis of the whole system of voluntary muscles, alternated with violent hysterical paroxysms—at times, distressing *globus hystericus*, and difficulty of breathing. Had complained principally of an aching sensation along the spine, but would not acknowledge herself seriously ill. Saturday, circulation more excited, but what is gained in frequency, it lost in volume. Paralysis more decided; hysterical paroxysms still very distressing; not disposed to sleep. Sunday, paralysis extending to involuntary muscles; inspiration frequent and only partial; action of the heart irregular and labored. This lady died on Monday night. Nothing unnatural about the tongue first two days; afterwards a white fur formed, then a dark, heavy coating, dry—with sordes upon the teeth. This case was first treated for remittent fever, with mercurials, quinine, and free cupping to the spine, then blisters to spine, and supportants internally.

3d Case. Was similar to the above in its leading features, only no hysterical tendency, but more decidedly paralytic, and died on the third day. This was a boy, about fourteen years of age.

4th Case. A woman, about twenty-five years of age, had been under treatment for menstrual derangement. Indisposition had been increasing for two weeks; complained that she did not have good use of herself—this was apparent in the unsteady manner in which she moved about—aching in her limbs and back; no appetite; complained of being very tired, and could not rest. Had not slept any

in two weeks ; took her bed in earnest only on Sunday morning. The above is the statement they received concerning her. At 10 o'clock the same morning, was entirely paralytic—unable to speak or swallow. Her expression indicated that she was conscious when spoken to ; in endeavoring to answer, she made an inarticulate, guttural noise. Pulse about 100 per minute, and rather feeble. Blister to the spine and back of the neck ; head shaved and cold applications ; bowels moved by turpentine enema ; very large quantity of pale urine drawn off at several different times ; blistered to the extremities and over the abdomen—tyimpanitis being present. All the symptoms continued to grow more decided until she died on the following Tuesday—she seemed at times to be choking and smothering, which was attributed to the *globus hystericus*.

These cases all occurred in the same section of country, within a few weeks of each other, during the prevalence of typhoid fever. The first three cases were under the care of distinguished physicians in Madison county—the fourth came under his own immediate observation.

Dr. Haskins desires to call the attention of the society to the epidemic feature of the disease ; he believed the negro population was most liable to be attacked, he was not prepared to offer an explanation of the fact.

Dr. Watson thought that muscular soreness might have been mistaken for the cutaneous tenderness, described by Dr. H. and other gentlemen.

Dr. Haskins could see no reason why the same cause might not produce muscular soreness as well as cutaneous. Recurring again to the employment of strychnine, he referred to the danger in inflammatory diseases from exudations of lymph ; the prime indication in cerebral inflammation, was to reduce physiological excitement, which strychnine, he believed, tended to exaggerate.

Dr. R. Martin repeated, that during the existence of the inflammation, he was opposed to the use of the medicine, but he believed that a condition supervened, which might be benefitted by it.

J. W. KING.

ART. LX.—PUERPERAL CONVULSIONS AND DELIVERY.

By T. Q. WALKER, M. D., of Haskinsville, Ky.

Six or eight weeks ago I was called to see a lady, twenty or twenty-one years of age, of small statue, delicately organized, and between six and seven months advanced in gestation. I found her insensible, breathing stertorous; she had just had a convulsion, the second in the course of two hours; had been bled after the first, and so soon as she could swallow I gave 5 grs. of calomel with a teaspoonfull of ipecac, and applied mustard to the spine and extremities. She vomited within a few minutes, throwing up an acid fluid, after which I gave an alkaline draught, to quiet the stomach, and opened the bowels by an enema of oil of turpentine, &c. She passed off a large amount of indurated scybalous matter, and was measurably relieved. In some twenty four hours from my arrival, I left her quite comfortable, having however, before leaving, ascertained that the fœtus was alive, and there was no threatening of miscarriage.

She continued pretty well, with the exception of one spell of vomiting—from acidity of the stomach—for two weeks or more, when one morning, without any premonition other than slight headache, convulsions recurred, of the most alarming character, and before I could get to her she had a dozen. Her system had, in the meantime, been kept as well balanced and in as good condition as it was possible. Upon careful investigation I knew there was no chance for her but to bring on abortion, and immediately therefore, I opened a vein and gave up the arm to an assistant, and made a digital examination of the womb—had no difficulty in introducing a finger into the *os uteri*, and soon succeeded in introducing a second finger, broke the membranes, and slowly made as much forcible dilatation as I thought prudent. It was not ten minutes until all convulsive movement ceased, and I desisted from active interference; immediately succeeding which, there was an interval of three or four hours that she rested quietly, when there was some little complaint, and I found the head engaged in the vulva. The child was dead; the placenta was easily removed; the uterus contracted slowly, but firmly, and without the loss of a gill of blood. The next morning she was comfortable, and knew nothing of what had transpired the day before.

The third day we thought she was doing well; had less fever than usual. No signs of lactation; bowels being hard to move, she had ta-

ken a small portion of calomel, and when it operated, the discharges were very bilious and too frequent ; used restraining means without effect. She had five or six copious bilious actions during the day, and regarding the liver too active, we gave small portions of salts and morphine. The bilious flux ceased, but the bowels continued to move ; sugar of lead and opium were used without the least effect. I now suspected scrofulous degeneracy ; indeed, my attention had previously been directed to her slight cough, not sufficient, in itself, to elicit any serious apprehensions, probably not more than is usual in seemingly similar conditions.

The sixth day I examined her chest, and found a considerable deposit in the apex of the right lung. I now used the nitrate of silver, in as large doses as the stomach would bear, with rhatany tea. There was, I was told, a falling of the bowels, which I ordered to be replaced immediately after every discharge. The nurse informed me she had failed to reduce it, when upon examination, to my astonishment I found at least eight inches of the mucus membrane of the rectum presenting from the anus, which had sloughed off above, become inverted, and the contents of the bowels were now passing through it. I cut it off, and in the course of that day and the next, there was two feet at least of the mucus lining discharged, eight or ten inches in one piece. When I saw this, I despaired of her recovery, but increased the nitrate of silver. By this time there was a kind of tolerance established, and in a few days more the bowels began again to improve, and we thought she might possibly get up ; but a large tubercular abscess opened in the lungs, and in a few days more a second, and as the bowels improved, the lungs gave way, and she finally died. The extensive lesion of the bowels, I think, was almost, if not entirely repaired.

ART. LXI.—CASE OF EXTRA UTERINE PREGNANCY.

[By Dr. JOHN W. McINTOSH, of Davidson county, Tennessee.]

Having been informed that the subject of extra uterine pregnancy was discussed with considerable interest at the last annual session of the Tennessee Medical Society, I beg leave most humbly to submit a case which, I think, claims the notice of those whose duty it is to witness and relieve the sufferings of humanity. Such cases, though infrequent, being attended with the most excruciating sufferings, and

slowly and certainly undermining the constitution of the sufferer, must awaken our deepest feelings of sympathy in their behalf.

In June, 1852, I was called to see this case in consultation with Dr. Morris, of Jasper, Tenn. She informed me that she had been suffering intense pain for *seven* years, and at regular intervals, indicated by the usual period of gestation, she had gone through all the symptoms and feelings of a woman in parturition, the pains continuing for thirty-six or forty-eight hours. Each confinement, so called, was terminated with a discharge of bloody mucus *per vaginam*, which, affording relief, she was able, in a few days afterwards, to resume her domestic duties. Her general health, during the intervals of her confinement, did not seem to be affected until after the third period; she then became very dull, lethargic, mind inactive, the powers of the body feeble, appetite failed. Her pains became more intense. On my first visit I found her emaciated, pulse small and irregular, surface of skin pale and cold, and occasional delirium. On making pressure over the abdomen, two *bodies* could be distinctly felt, the one occupying the hypogastric and lumbar regions, large, yielding to pressure, and movable under the hand; the other small—in the iliac region, hard, firm, unyielding and immovable. Pressure gave considerable pain. Dr. Morris inclined to the belief that he had discovered the opening into the rectum by an examination *per vaginam* and *in ano*, though I feel convinced he was mistaken, for, owing to the small and contracted condition of the parts, the finger could not be introduced high enough to reach the *os uteri*.

About three weeks before death, the left foot began to swell, which increased until the entire leg was of enormous size. The swelling continued till it reached the lumbar region, intense pain being experienced whenever the limb or pelvis was moved. It presented a shining surface, colder than natural, and absence of pain on pressure.

As to the treatment adopted, this is quite obvious. Dr. M. had been pushing the ergot to its utmost powers. Just before my first visit, during one of her *false* confinements, while suffering from intense bearing down pains, a rupture took place through the rectum, affording a channel for the passage of several well developed bones of a child, and at every subsequent confinement, a greater or less number of these bones would pass. Seeing the woman fast sinking under the efforts of nature to relieve her of this unnatural pregnancy, I proposed the Cæsarean operation, but was not allowed to perform it—feeling convinced that it was the only means of saving the pa-

tient. On suspending the use of the ergot, and resorting to opiates, the symptoms somewhat abated. A few days before her death, incessant purging of the bowels ensued, during which there were passed off large and frequent sloughs of the bowel and other parts. Mortification having evidently taken place, the patient soon sunk.

I do not recollect exactly, but I am under the impression that we counted one hundred and thirty-five separate bones—of the bones of the head there being only one parietal missing. No *post mortem* examination allowed—consequently we are left in doubt as to whether this was a case of tubal, ovarian, or abdominal pregnancy—though I am inclined to the last form, the symptoms, and examination, and consequent termination, all confirming this belief. If so, or in any case, is it not safer to resort at once to the Cæsarean operation for relieving the woman, than to risk her life by trusting to the powers of nature to effect its own cure?

ART. LXII.—HOT WATER AND SOAP IN PTYALISM.

A great variety of remedies have, from time to time, been employed in the treatment of ptyalism; every practitioner having his own favorite remedy. Tar water, solution of creasote, lead water, sumach root tea, sage tea and honey, alum, spts. turpentine, &c., have each acquired more or less reputation in the hands of different practitioners; but we have never been satisfied with any of these remedies, though we have repeatedly prescribed them. Very recently, having to treat a severe case of accidental ptyalism, we prescribed a *hot* solution of soap. The patient was suffering with severe pain of the gums and copious salivary discharge—a few drams of spirits of soap was added to one pint of *hot* water, and the patient directed to take it into the mouth, as hot as he could bear, and retain it until the surplus heat was exhausted, and repeat for an hour, allowing an interval of half an hour for rest. At the end of twelve hours, we had the gratification to find the patient almost entirely relieved of the pain—the swelling and redness of the gums and soft parts about the mouth rapidly diminished, and in a few days, by the persevering use of the hot water, the patient was free of all uneasiness about the mouth.

The value of hot water was suggested from having observed the

good effects of hot tar water in a similar case ; the patient, a delicate, nervous female, was directed to use warm tar water occasionally, but finding that the hotter the water, the greater relief was afforded, she continued using it as hot as the mouth could bear it. We had noticed too, the effects of the prolonged immersion of the hands of washwomen in warm *soap suds*, corrugating and puckering the skin of the hands and fingers to such a degree that the blood seemed almost expelled from the vessels of the part.

The first effect of hot water in mercurial sore mouth, seems to be relief from the painful distension of the soft parts, and secondly, an anemic condition of the blood vessels from contraction or collapse of the capillaries. The stronger preparations of soap are powerfully astringent—the kind used in preparing the *spts. sapo.* was the castile—it may be that *turpentine* soap is preferable.

J. W. K.

ART. LXIII.—SUPPLEMENTARY SCHOOLS OF PRACTICE.

By reference to the proceedings of the last meeting of the American Medical Association, it may be seen that the committee on Medical Education, presented a very able report, in which they specially recommend supplementary schools of practice to the consideration and patronage of the medical profession. It was also

Resolved, By the Association, that, in order to secure this end, hospitals, when elevated to the rank of schools of practice, and the intelligent private preceptor, are the most efficient instrumentalities to be used. Without such practical information, derived from a well organized school, or a competent preceptor, the young practitioner, though flushed with hopes, and fresh from his *Alma Mater*, enters upon a series of disappointments as inevitable as they are unenviable, while with such preparatory discipline, one may enter upon the practice of medicine with the reasonable hope of securing honor to himself and safety to his patients.

There are, probably, one third of the medical students throughout the country, who never witness a dissection previous to their entering a medical school, and who, consequently, prior to that time, know really very little of anatomy ; and hundreds, for the life of them, could not distinguish between a section of tendon and nerve, or the arterial and venous systems. Nor are students unaccustomed to dis-

section, to be reckoned more ignorant of anatomy than are many of the honorable Alumni of our most renowned colleges, of the *multi-form phases* of unseen disease.

We hope that the evils sought to be remedied by the American Medical Association, will yield to treatment, and that in future, no honorable physician will, for either love or money, take to his office, as a student of medicine, a man of whom he would be ashamed anywhere ; and that every preceptor will occasionally demonstrate whatever he assumes to treat or teach. Until then we may be excused for cautioning the young and inexperienced physician against the too hasty expression of his opinion of diseases, and particularly those observed by the use of the speculum or stethoscope.

W. P. JONES.

ART. LXIV.—POISONOUS EFFECTS OF LAUDANUM.

Reported to the State Medical Society, and published in the Nashville Journal of Medicine and Surgery, 1852.

About 10 o'clock on the night of the 27th of August, 1851, I was called to see a patient 45 years of age, bilious temperament, six feet high, full habit, and in fine health, who, in a state of intoxication, had an hour before taken four ounces of officinal laudanum. I found his pulse full, quick and bounding ; his face flushed, eyes red and swollen ; was but little inclined to sleep, and evidently laboring under much mental excitement, which, in some degree at least, was attributable to the cries and general distress of his family.

Immediately upon my arrival, I attempted to administer an active emetic, which, however, in a very determined manner he resisted. After reasoning and persuasion had both proven unavailing, and when several of his friends had come in, I determined to take him and administer by force, the necessary medicine ; whereupon he became exceedingly furious, and when his family heard of his demonstrations of resistance, they begged me to refrain from any further attempt of the kind, expressing the hope that they could yet induce him to consent to treatment without the resort to coercive measures which I now proposed. Having, in this peculiar case, more regard for the feelings of the family than the life of the patient, I probably violated professional duty in complying with their request. And after having procured a strong decoction of tobacco leaves, and directed its cautious, though if possible, copious application to his stomach and bowels, and succeeding in giving him 3 ozs. wine of ipecac, I left the room for a few minutes. During my absence, his mental excite-

ment in some degree subsided, and drowsiness rapidly supervened, until he was aroused by an effort at emesis. He threw up but little, and that tinged with and smelling strongly of laudanum. Immediately after this effort, he fell back in bed and in a moment was in the profoundest stupor, from which neither the frantic shrieks of his family or the thunders of heaven could arouse him.

His breathing suddenly became loud, slow and irregular; his pulse, though somewhat less frequent than before, had still great volume and almost irresistible force. I now, at 11 o'clock, sent every member of the family from his room, drew him from the bed, stripped and placed him upon the floor, and for an hour had constant recourse to the cold dash, during which time respiration was becoming more and more laborious and even difficult. Pulse irregular and now slightly reduced in volume and frequency. In the meantime, Dr. J. W. King, who had been sent for, came in, and upon consultation, we continued the dash and resorted to the stomach pump. The pump being out of order, we had but little difficulty in adopting a very efficient substitute,* with which we thoroughly washed his stomach, bringing away a large quantity of laudanum; still, however, no consciousness supervened. Dr. Buchanan was sent for—examined the respiration, circulation, &c., approved the treatment, made no suggestion, but thought the patient would die in despite of our exertions. By this time, (12 o'clock,) the muscles of the back, arms and legs, had become rigid—so rigid were those along the spinal column that his head, which, when he was in the sitting posture had previously fallen upon the chest, or from side to side, now maintained an erect position, and against the force of gravitation the rigidity of the muscles would still retain it. If the legs remained flexed for but a few minutes, they were with difficulty extended, and if extended, not easily flexed. Regarding it indispensably necessary, we endeavored to keep him constantly in motion; still, his pulse and respiration grew rapidly worse, until by leaving him quiet but a few moments in the reclining posture, respiration would cease entirely. After administering several copious enemas of cold water, we, at one o'clock, suspended the cold dash, wiped him off, threw into the stomach a glass of iced brandy toddy, removed him to another room, placed his feet in warm water, dressed him in flannel underclothes, and commenced artificial respiration. This, however, we had in some measure adopted an hour previous to this time, by taking hold of each of his hands and violently exerting the respiratory muscles. This mode of respiration having now proven insufficient, we were compelled, in order to sustain life, to keep up the action of the lungs, by the application of sufficient force with both hands, immediately over the diaphragm.

* Andj ust here allow me to say, for the benefit of country practitioners, who may not at all times find it convenient to have a stomach pump, that we, on this occasion, introduced a gumelastic tube, and attached it to a 2 pint syringe. This, by the way, constitutes the most simple, available and convenient pumping apparatus we have for the stomach.

By thus laboring, (from one to three minutes or more,) and creating a vacuum, respiration would become transiently established, though was rarely perpetuated for a longer period than was necessary to reproduce it. After the first natural involuntary inspiration, or, in other words, immediately succeeding the first independent respiration, the *pulse*, which by the mechanical effort was made full and strong, would begin to abate both in force and frequency, and very soon become imperceptible at the wrist; but so soon as the air was pumped into the lungs, the arterial excitement would rise higher and higher still, in proportion to the time the bellows force was exerted over the region of the chest. And thus the patient remained, a mere stertorous machine, in the hands of four or five athletic men, for twelve hours; for several hours of which time, to have neglected him thirty minutes, would have irrevocably sealed his destiny.

At 3 o'clock on the morning of the 28th, coma was most complete, though at no time from 11 o'clock the night before, had there been the least manifestation of perception or wakefulness. The snoring which followed the mechanical respiration had been horribly loud all night, but now it amounted to snorting. Rigidity of the muscles was more general, pulse exceedingly small and irregular, whole external surface and particularly extremities, cold; hands, eyes, lips, cheeks, and in fact the entire body, was livid. Notwithstanding this combination of deathly indications, I persevered in *alternate contractions* of the chest, as the *only* possible means of his restoration.

At 8 o'clock, A. M., gave the patient, through the stomach pump, probably a pint of ice water and brandy. Soon after this, Dr. Winston came in, examined his general condition, concurred as to the propriety of treatment, but thought that it would all prove unavailing—that he would die within an hour. But life, which so frequently lingered at the lips, was as often invited back; and the pulse which so frequently faltered, resumed its action at our bidding.

12 o'clock came, and no return of sensibility or consciousness to the patient.

1 o'clock, P. M. Artificial respiration was still kept up in the same manner and with like results. Presently, however, he was heard to groan; in a few moments thereafter his eyes, hitherto fixed, were seen to move beneath the lid. Again he sighed, and more deeply than before. Natural respiration was gradually resumed. Circulation became more diffusive; warmth slowly returned to the extremities, and by 2 o'clock, P. M., he tried to speak, and finally remarked he had “just about two hours ago taken four ounces of laudanum—that he was getting sleepy and wanted to be let alone.”

He recovered more speedily than could reasonably have been expected. For many days he was of course very sore, indeed he could scarcely bear to be moved. His throat, from the rigidity of muscles, and frequent introduction of the gum elastic tube, was so much inflamed that he could swallow nothing else than warm fluids. His bowels remained constipated for several days. Three drops of croton

(or, to use his own expression, Telegraph) oil, relieved him of this, and in a week he was able to walk about the room.

QUESTION.—As in this, and other instances, artificial respiration has resulted so favorably, may we not hope for better success than has hitherto attended our practice in this class of poisons, as well as in most cases of asphyxia, not attended with organic lesion ?

W. P. JONES.

ART. LXV.—TREATMENT OF CHRONIC ABSCESS OF THE BREAST
AND MILK FISTULÆ.—EMPLOYMENT OF IODINE INJECTIONS.

We have been much gratified by watching the result of the treatment pursued by Mr. Birkett in several cases of chronic inflammation of the breast, attended with sinuses and long continued suppuration, which have recently been under his care. This form of disease, as the result of neglected milk abscess, falls, we have no doubt, pretty frequently under the observation of most of our readers, and is often very troublesome to cure. The breast becomes affected with solid œdema, the sinuses, usually running in several directions through and behind the gland, are most difficult to close, and, by the constant discharge from them, the patient's powers become much undermined. In an extreme case of this description, which had lasted for many years, we not long ago saw Mr. South perform excision of the whole diseased mass, believing that to be the shortest method of getting rid of a useless part, which had become a serious evil to the patient. The remedies usually employed are, as it is well known, support to the part, and the laying open freely of the sinuses, or the injection of them with various irritating fluids. Mr. Birkett's treatment consists in the employment of iodine taken internally, applied as an ointment over the tumor, and used also as an injection for the sinuses, whilst at the same time, the part is carefully supported and subjected to gentle pressure by means of a bandage. The power of iodine, as a means of exciting the absorption of inflammatory products, is well known ; and, as an application to the lining membrane of sinous abscesses, it has for some time been employed on the Continent, and, less generally, in this country also. The success which has attended Mr. Birkett's method of treatment has been, as the following case will show, most encouraging :

Elizabeth Wiles, aged 26, the wife of a farm laborer, was admitted January 6th, 1853. Three years ago, while suckling, she suffered what, from her description would appear to have been, an attack of acute inflammation, both of the left mammary gland, and of the surrounding structures. Her child was then eleven months old, and the disease appeared to have been excited by inflammation of the lymphatics of the arm, from a sore on the finger. It was so severe

as to confine her to bed for ten weeks, and to necessitate the employment of a great number of leeches. It ultimately subsided considerably without having occasioned any abscess. The swelling, however, never quite disappeared, but after a time it again began to increase; and a year subsequent to the first attack, a large chronic abscess had to be opened, which never afterwards healed. In September, 1852, she was again confined. The disease of the breast having resisted the persevering treatment of several practitioners in the town where she lived, and her constitutional powers being evidently very much reduced by the long continued and profuse discharge of pus which it produced, she was ultimately recommended to come up to town, in order to have Mr. Birkett's opinion as to the propriety of excision. On admission, she was emaciated, and of a somewhat hectic appearance; the discharge from the sinuses was very profuse, and the whole breast much indurated. She was then suckling with the right breast.

Mr. Birkett advised her to wean her infant, and ordered her to be confined to bed, with a poultice over the part for a few days, until the state of excessive irritation, which appeared to exist, had somewhat subsided. He then prescribed for her the following mixture:

R. Potassii iodidi, gr. iij., infus. gent. ʒi., ter die sumend.

The breast to be wrapped in lint spread with ung. plumb. iod., and the whole supported by a bandage carried round the shoulder. On the 23d, the symptoms having already begun to amend, the injection of all the sinuses with the tincture of iodine, (London Pharmacopœia,) was performed by means of a tube carried to the end of the sinus. The treatment as above was persevered in, and after the expiration of a week the injection was repeated, and again after another space of two weeks. At present, March 15, the sinuses are quite healed; the gland has been reduced very nearly to its natural size, and the patient has gained in general health to a point beyond what she has enjoyed since the commencement of the disease. With the exception of the first few days, she has been allowed to be out of bed the whole time, and full diet has been allowed her. On each occasion that the injection was used, it produced considerable smarting pain, and was followed by a temporary increase of swelling and discharge, which very quickly subsided.

We scarcely need point out the advantages of the above plan of treatment over the old method of laying open the sinuses. In the latter the incisions have to extend wide and deep, and they involve considerable hemorrhage, and, for a time, increased constitutional irritation and great discharge of pus. Other cases of a similar nature lately brought under Mr. Birkett's charge, in which the iodine cure has been practiced, were the result of common milk abscess, from which the above, as will be seen, differs in some particulars.

Prevention is better than cure, and, as we believe, there are few diseases more thoroughly within the reach of prophylactic measures, than is milk abscess, we cannot dismiss the subject without saying a few words on that head. The history of this disease is in most cases

ses easily told. A woman of delicate skin is confined, perhaps for the first time; lactation commences, the cuticular investment of the nipple, irritated by the mouth of the child, becomes cracked and fissured, each application of the infant to the breast occasions torment to the mother, and she avoids it as much as possible. The child is allowed to suck only on the sound side, the milk accumulates in the other breast, and slight inflammation is set up, to be aggravated by the increasing dread on the part of the patient of the natural method of relief, the evacuation of the milk. An abscess is the result. Now, how was all this to be avoided? In most cases, pregnant women consult their medical advisers on sundry little points some time before their confinements. Let him, on those occasions, enquire as to the state of the nipple; and should the skin be found to be delicate, the daily application to the part of an alum wash, decoction of oak bark, or some other astringent, should be recommended. By such means the skin may be hardened, tanned in fact, and rendered just as capable of resisting irritation as that of the finger. In other cases, milk abscess depends on the non-development of the nipple. The surgeon should take care that a shield be provided beforehand, and that his patient knows how to use it properly.

But, supposing that, with the greatest care, abscess has proved unavoidable, there are still measures by which the disease may be prevented from passing into the deplorable condition in which we have noted that the patient in the above case came into Mr. Birkett's hands. We have repeatedly heard Mr. Paget observe, that, among his out-patients at St. Bartholomews, he never has any opportunity for trying the various vaunted injections for the cure of sinuses in the breast, because the latter always heal of themselves. We have very carefully watched Mr. Paget's practice, in which mammary abscesses are very common, and can most fully confirm this statement. His treatment consists in the free evacuation of all collections of matter, and in the internal exhibition of tonics. A generous diet of meat and beer, with full doses of quinine or iron,—such are the remedies under which improvement in the local and general condition of the patient seldom fails to become rapidly manifest. It must, however, be admitted that the applicants, as out-patients, do not include a small class of peracute cases, in which the symptoms are often too severe to allow of the patient's leaving her bed. The systematic avoidance of antiphlogistic measures in the treatment of local, suppurative inflammations, is daily becoming more and more common, and in no respect has modern practice more strikingly advanced than in this. It affords, too, a good illustration of the application of minute pathological research to actual every-day practice. Those of our readers who had the good fortune to hear Mr. Paget's lectures on inflammation, delivered before the College of Surgeons three years ago, will remember how unwillingly the Professor admitted the existence of any increase in formative power in that condition. This view, founded as it was on theoretic reasoning, and microscopic observation of the process, has since been advocated by other pathologists, in

cluding some of the German school, and it is interesting to observe how, upon empirical recommendations merely, the line of practice which it would suggest, is rapidly coming into vogue.—*London Med. Times and Gazette*.

ART. LXVI.—AMERICAN MEDICAL ASSOCIATION.

Extracts from the Proceedings of the Sixth Annual Meeting, held in the City of New York, May 3, 4 and 5, 1853.

The American Medical Association held their Sixth Annual Meeting in the Presbyterian Church, Bleecker Street, the President, Dr. BEVERLY R. WELLFORD, of Va., in the Chair. At 11½ A. M., the meeting organized, and the President congratulated the members of the Association upon the happy return of the anniversary, the thronged attendance of delegates from all parts of the Union, and the flattering prospects and advancement of the profession generally.

Dr. Stewart called over the list of delegates, and announced that a majority were present.

The Vice Presidents and Ex-Presidents of the Association were requested to take their seats on the platform with the President.

Dr. Condie, of Pennsylvania, as chairman of the Committee of Publication, reported upon the sale and disposal of the first, second, third, fourth and fifth volumes of the printed record of the Transactions of the Association, the number presented to kindred societies, the number sold, and the number remaining on hand. He wished to observe that the implied, and sometimes open censure, cast upon the committee on account of a tardy issue of the books from the press, was not deserved. The records were now voluminous, and much sought after. Under these circumstances, the present assessment of three dollars per annum was insufficient to have a work of such importance printed as speedily as the committee would wish. To meet the emergency, he would move the following resolutions:

First.—That the assessment for the present year be increased from \$3 to \$5.

Secondly.—That the Committee on Publication be authorized to decide upon what terms the printed record of the Transactions of the Association shall be furnished to members and others.

Both resolutions were read and adopted.

The Treasurer read the following report:

Cash received from all sources during the year, - - \$1,905

Cash paid away during the year, - - - - - 2,015

Balance due Treasurer - - - - - \$110

Dr. Condie—At other meetings of this body we have had a balance of cash in the treasury, but the present account shows a deficit.

It is absolutely necessary that money be forthcoming. One of our most talented members, one of the highest ornaments of the profession, will read a paper which he has spent years in compiling, and which will do honor to the author and the country. The proper illustration of the paper, so that it may be published as it should be, will cost one thousand dollars. If it were sent forth in any other style, it would be a disgrace to the Association. I had this matter in view when I proposed the increase of assessment. I would move that the Publication Committee furnish extra copies of the printed transactions of the Association to the chairmen of the different committees on epidemics, at the expense of this body. I am certain that the members will not object to \$5 for a volume which could not be bought by a private person or of a bookseller for that sum.

Dr. F. C. Stewart presented a report, recommending the admission of Dr. Marshall Hall, of London, Surgeon Mower, U. S. A., Surgeons Bache, Pinckney, Brownell and Simpson, U. S. N., Drs. Leonard and Betton, Florida, Hon. Dr. Bartlett, N. Y. Senate, Dr. Harris, Canada, Dr. Rodder, Canada West, Drs. McIlvaine and Pittman, American Medical Society, Paris, to participate in the proceedings by invitation.

On motion of Dr. Cox, a committee was appointed to wait on Dr. Marshall Hall, and conduct him to a seat on the platform.

DR. WELLFORD'S ADDRESS.

The President then read a lengthy and very able address. It was an eloquent exposition of the objects of the Association—a rehearsal of the good it had done, and an indication of certain modes by which it may do still more. The society has been in existence some seven years. It grew out of a severely felt want of an organization of the scattered medical forces. A convention assembled in this city, at the suggestion of the New York Medical Society, to take into consideration the condition of the profession, and to adopt some concerted action. Although the call was imperfectly circulated, about one hundred delegates, from nineteen States of the Union, responded to it by their personal presence. And they resolved to institute a National Association for the protection of their interests, the maintenance of their honor and respectability, the advancement of their knowledge, and the extension of their usefulness. In the untried circumstances of their early history, imperfections in the plan of organization were inevitable. The President advises careful and gentle revision, but deprecates all desultory innovations, or sudden and radical changes.

There are those who affect to believe that the Association has hitherto effected nothing. In answer, the Doctor refers to the fact that it has aroused attention to the imperfections of medical cultivation—that it has demonstrated the necessity of raising the standard of medical acquirements, and done much through its potent leverage to raise the profession to its proper level. It has secured in many colleges a lengthened course of lectures, encouraging the well disposed to require of the candidates for graduation higher attainments

in general and professional knowledge. It has stimulated professional ambition, and drawn out from quarters whence no other means would have elicited it, highly important contributions to medical science. It was the action of the Association, in its early days, which directed the attention of the Legislatures of several States to the high importance of collecting and measuring their vital statistics. Following its suggestions, laws have been passed in New York, Massachusetts, Rhode Island, Connecticut, Michigan and Illinois, and we believe, in several of the Southern States—not always of the most practicable sort, or the best that could be devised, yet in every case, highly honorable to the intentions of their framers, and likely to lead to more perfect systems—laws which provided for the registration of all the births, deaths and marriages, within their several borders. In obedience to this recommendation of the Association, and in consequence of it, the convention which recently sat in Virginia, for the purpose of amending the State constitution, made the passage of a registration act obligatory on her legislature. In compliance with that requisition a law was passed at its late session, the first under her new constitution.

Another tangible and note-worthy result of the efforts of the Association, is the action of the Federal Government with reference to the adulteration of drugs. At the meeting in Baltimore, in 1848, its attention was directed to the immense amount of adulterated and sophisticated drugs prepared in foreign countries, and imported into our own. Congress promptly responded to the recommendation of the Association, and in an act approved June 26th, 1848, Inspectors were appointed, and the passage of any drug or medicine so adulterated or deteriorated as to be inferior in strength and purity to the standard established by the United States, London, Edinburgh, French and German Pharmacopeias and Dispensatories positively prohibited. The Examiner of drugs in the New York Custom House, within five months after this law went into operation, had condemned and rejected no less than 13,000 lbs. of rhubarb, 2,500 lbs. of opium, 7,200 lbs. of jalap, 1,414 lbs. of gum gamboge, 1,400 lbs. senna, 30,000 lbs. spurious yellow bark, 3,000 lbs. of iodine, and 1,700 lbs. of myrrh, all of which, but for this law, would have found its way throughout our extensive country, and to the bedsides of the sick and the suffering, to mock them with their inertness, or poison them with their unsuspected strength. A Senator in Congress well remarked that, if the National Medical Association had advised no other reform than this, its labors would entitle its members to the gratitude of its country. Dr. Edwards, who was employed by the Secretary of the Treasury to visit the principal ports, and ascertain the working of the law, found them to be : 1. An elevation in the quality and purity of the medicinal agents imported. 2. An entire prevention of adulterated and deteriorated drugs, &c., from entry and use. 3. No embarrassment to the honest importer and dealer. 4. An increased revenue. 5. Protection to the medical profession and community, and increased confidence and a desire for the contin-

uance and faithful application of the law. Spurious and adulterated articles are now almost entirely excluded from our markets, with the exception of home manufacture. Nor have these increased. Attention having been thoroughly aroused to the whole subject, adulterations cannot be practiced with impunity as formerly.

Much has been done, and yet it is only a beginning. The learned President next addressed himself to the task of indicating the points demanding immediate action.

The city affords advantages which the country practitioner cannot enjoy. In the city, professional men meet daily; every day they talk over affairs pertaining to their profession. The spirit of their company is kept alive; the ambition of the zealous is never permitted to flag. In the country it is otherwise; a professional consultation is only an occasional event, and any thing like daily contact with friendly brethren is out of the question. Yet physicians are but men, and when all the talk of a village is of cattle and rich acres, and of politics, the physician talks of such things too—grows rusty on medical matters, and becomes *au fait* on politics and farming. In some small degree to remedy this, let local medical societies be planted; and to facilitate their growth, the President advises the appointment of a committee to prepare a form of organization of both local and State Societies, and that its adoption be earnestly requested.

He calls attention to the very unsatisfactory state of things which allows a diploma to be considered equivalent to a license to practice, and indeed tolerates any body as a practitioner who chooses to dub himself a doctor—favors the invocation of State legislation on the subject, and the establishment of Licensing Boards, to be entirely distinct from all bodies that grant diplomas.

He invites a recommendation to the authorities charged with the duty, for such action as will shield the public from the home production of adulterated medicines. All that could be done to prevent the importation of these nuisances the Federal Government has done; but there remains necessary such enactments by the several States as will make disreputable and unprofitable the business of preparing for the market inert medicines or drugs of a strength inferior to the officinal standard.

Dr. John A. Lamb, of Pennsylvania, is the only one who has been appointed under power of the resolution adopted in 1852, to travel in Europe, and report upon foreign medical affairs. With a touching tribute to the memory of Drs. Drake and Horner, members who have deceased during the twelvemonth, and a word of advice fitly spoken, the President concluded his address.

Dr. Hays, of Pa., moved the thanks of the meeting be presented to the President for his elegant, appropriate and eloquent address, requesting a copy for publication in the Transactions of the Association. Carried.

The Committee on Nominations reported the following officers for the ensuing year:

For President—Dr. Jonathan Knight, of Connecticut.

Vice Presidents—Drs. Usher Parsons, of R. I., Lewis Condict, of N. J., Henry R. Frost, of S. C., R. L. Howard, of Ohio.

Secretaries—Drs. Edward L. Beadle of N. Y., and Edwin L. Le-moine, of Missouri.

Treasurer—Dr. D. Francis Condie, of Penn.

The committee reported St. Louis, Mo., as the place to hold next annual meeting.

The report was adopted.

Drs. Couch, Watson and Atlee, were appointed a committee to conduct the President elect and other officers to their seats.

Dr. Knight, on taking the chair, returned thanks for the honor conferred on him.

STATED REPORTS FROM STANDING COMMITTEES.

Report—On the causes of Tubercular Disease ; Dr. D. F. Condie, of Penn., said that the committee was not prepared to report at the present Convention meeting. They had considered the subject very attentively, and the more they did so the more a new light broke upon them, until they began to doubt the orthodoxy of the received opinions regarding tuberculosis, its causes, and the proper course of medical treatment to be pursued. An abundance of material was furnished—in fact, the report was almost ready ; but he had such onerous duties to perform during the year, both as Chairman of the Committee and Treasurer of the Association, that it was utterly impossible that he could compile it in proper shape. He made this explanation, lest the committee should be accused of indolence in the matter.

Dr. Atlee, of Penn., moved that the explanation be accepted, and the committee be continued to the next session of the Association.

Report—On the Mutual Relations of Yellow and Bilious Remittent Fever ; Dr. James Jones, of New Orleans. Committee not prepared.

Report—On Epidemic Erysipelas ; by Dr. R. S. Holmes, St. Louis, Mo., Dr. Holmes not present.

Report—On Acute and Chronic Diseases of the Neck of the Uterus ; by Dr. Charles D. Meigs, Philadelphia.

Professor Meigs presented a voluminous report, which he said he did not wish that the Association should give to the newspapers, as then it would get out of the "family." The report was received and referred to the Committee on Publication.

Report—On the Agency of Refrigeration, produced by the upward radiation of Heat, as an Exciting Cause of Disease ; by Dr. G. Emerson, of Philadelphia.

Dr. Emerson gave a synopsis of the report of the committee relative to their view of the theory of diseases caused by exposure to wet, damp, cold malaria, and other agencies of this class ; the different susceptibilities of the system, when the body is entirely exposed to their action, or when radiation is interrupted by ever so thin a shade ; the fallacy of lunar influences in exciting diseases ; the extent of radiation upon clear nights ; the reasons of the difference in the amount of diseases from the above causes in the city and country.

The Doctor explained the tendency of the ideas of the committee, when the report itself was accepted, and referred to the Committee on Publication.

Report—On Typhoid Fever ; by Dr. F. H. Campbell, of Augusta, Ga.

Dr. Campbell said he was not aware, until too late an hour to do so, of the fact a written synopsis of each report was required by the rules of the Association. If permission were granted, he would make a verbal one, and explain to the convention the views he had taken regarding this class of fever. The permission was granted.

Dr. Campbell—I have, sir, little experience in the actual treatment of typhoid fever, as it rarely prevails in the district where I am located. I have therefore given a condensed history of the existing pathology regarding it, set forth by other writers, accompanied with my own opinion that the disease lies and has its origin in the ganglionic system of nerves. If you divide some of the superior branches of these nerves, there is an immediate ecchymosis of the eye different from the ganglionic congestion observable during typhoid fever. I have called attention to the existence and causes of the maculated spots which appear upon the surface in the one variety of fever and extend through the alimentary canal in the other; and reason that the latter morbid appearances are the result of the diseased ganglionic plexus extending from the superior cervical vertebræ through the vertebral column to the ganglions of the sacrum. In referring typhoid fever to this cause, I have recorded the appearances presented in the pharyngeal plexus, the larynx, œsophagus, stomach and duodenum, (which is separated in a great degree from the influence of the cerebro-spinal system,) and I have then pointed out the existence of the ulcerations of the lower portion of the ilium, and to a great extent, as a reason for my belief. I have traced the different appearances observed in typhus fever. I have examined the theory of Woods upon the deficiency of fibrin in the blood, and endeavored to show that typhus and typhoid fevers are quite distinct diseases.

The synopsis was received with loud applause, and the report referred to the committee on Publication.

Report—On the Epidemics of New Jersey, Pennsylvania, Delaware and Maryland; by Dr. John M. Atlee, Lancaster, Pa. Dr. Atlee could not report, from the want of personal practice in his district since the Convention met last, and also from the fact that gentlemen residing in different sections of the States named had not sent the results of their experience to him. New Jersey was so healthy that they had no epidemics since the Richmond Convention. He found that you may as well attempt to move the iron mountain of Missouri as endeavor to get medical men to commit their remarks to writing. There was, therefore, a lack of material. He hoped the Committee would be excused. Committee excused and continued.

Prof. Palmer, Chicago, moved the following:

Resolved, That this Association earnestly recommend to the local Societies in different parts of the country, to appoint Committees,

whose duty it shall be to record the prevalence of epidemic or other diseases, and the general state of health in their respective localities, and to transmit said reports to the Committee of the Society on epidemics, through the State Societies where they exist.

Resolved, That the Secretaries be requested to secure a wide publicity to the above resolutions, by such means as they may deem proper. The resolutions were adopted.

Report—On the Epidemics of Tennessee and Kentucky; by Dr. W. L. Sutton, of Georgetown, Ky.

Dr. Sutton sent in his synopsis, which was read. Cholera, bilious fever, dysentery, typhus and typhoid fevers, cholera infantum, and other diseases appearing in the different districts of the two States periodically, were treated under ten different heads.

Report referred to the Committee on Publication.

Dr. Pitcher, of Michigan, presented a report on the subject of *Medical Education*, which he was requested to read at length. The report was a long and able document, containing many valuable suggestions to prevent the spread of quackery, and on the best means of training the medical student. The Committee proposed that all candidates for degrees shall have studied at least three years, and recommend the extension of lecture seasons to six months. The Committee repeated their high opinion of the benefits to be derived by students from bed-side experience, as superior to lectures and flitting Hospital visits, and suggested a supplementary school of practice. The Committee ask leave to conclude their report by presenting the following resolutions:

Resolved, That the Association re-affirm its formerly expressed opinion, on the value and importance of general education to the student and practitioner of medicine, and that it would gladly enlarge its rule on this subject, so as to include the Humanities of the schools, and the Natural Sciences.

Resolved, That in the opinion of this Association, a familiar knowledge with the elements of Medical Science should precede clinical instruction.

Resolved, That in order to accomplish the latter, the Hospitals when elevated to the rank of Schools of Practice, and the intelligent private preceptor, are the most efficient instrumentalities to be used for that purpose.

On motion of Dr. Atlee, the report and resolutions were adopted.

The Committee on volunteer Communications reported, through Dr. Joseph M. Smith, of New York, upon the number of contributions received. Dr. Smith said that the committee had awarded one prize of \$100 to Dr. Waldo J. Burnett, of Boston, Mass., for his treatise upon the "Cell; its Physiology, Pathology, and Philosophy"—adding: "*Natura in minimis maxima esset.*" (Cheers.)

Another prize of \$100 had been awarded to Dr. Washington L. Atlee, of Philadelphia, for his treatise upon "The Surgical Treatment of fibrous Tumors of the Uterus." Dr. Smith added: "*Pal-mam qui meruit ferat.*" (Cheers.)

Dr. Alden March, of New York, made a verbal abstract of his paper on "Diseases of the Hip Joint," which was favorably reported on by the Committee; and on motion of Dr. L. A. Smith, he was requested to read the paper, during recess to-day, in Crosby street Medical College.

Dr. Blatchford, of New York, offered the following:

Resolved, That the suggestions in the President's Address, touching the licensing power, be referred to a Committee of five, of which Dr. Wellford shall be the Chairman, to prepare some plan whereby the subject may be brought fairly before the Profession, and, if deemed advisable, that the Legislatures of the several States may be memorialized to carry out the recommendations of this Association—the Committee to report at the next meeting of the Association.

Dr. Garnett, of Washington, D. C., proposed the following as an amendment:

Resolved, That a Committee of five be appointed by the President of this Association, to prepare a Memorial to the Legislative bodies of the several States of the Union, praying that a law be passed prohibiting the Faculty of any Medical Institution which may at present exist, or may hereafter be established within the limits of said States, from conferring the degree of Doctor of Medicine upon any candidate for graduation who has not previously graduated at some literary institution, or who, upon examination by a competent Board, is not found to possess a good English and Classical education.

Resolved, That regarding the present term of preparatory study adopted by the Medical Colleges of the United States, too limited to enable students of medicine to acquire such a competent knowledge of the profession as should entitle them to receive the degree of Doctor of Medicine, a recommendation be incorporated in said memorial, that some Legislative action be also had upon this subject.

Resolved, That it be the duty of the President and Secretary of this Association, to transmit, through the Executive head of each State, a copy of said Memorial to their respective Legislative Assemblies, and that a Circular be addressed to the members of the Medical Profession, resident at, or convenient to the seats of Government of the several States, requesting them to use every practicable exertion consistent with the honor, dignity, and good repute of the Profession, to procure the passage of a law in accordance with the foregoing resolution.

Dr. Charles A. Lee then offered the following resolutions:—

Resolved, As the sense of this Association, that those Medical Colleges which give two courses of lectures annually, each of which counts as a separate course, have virtually violated and forfeited their Charters, which do not contemplate but one annual session, (thus making two Colleges out of one.)

Resolved, That the practice in question is calculated to lower the standard of attainment in the Profession, and subjects those who

countenance it, to the imputation of acting from mercenary motives.

Resolved, That no Delegates shall hereafter be received by this Association, from any Medical Schools which give two courses of lectures annually, each of which counts towards a degree.

On motion of Dr. Atlee, of Pa., the resolutions were laid on the table.

Dr. Stewart read the following resolutions, offered by Dr. Stephen W. Williams, of Mass., a permanent member :

Resolved, That the thanks of this Association be presented to Dr. Winslow Lewis, of Boston, a member of the Massachusetts Legislature, for the bill which he has presented and endeavored to sustain, providing that "no druggist, apothecary, or person engaged in the manufacture of medicines, or compounds to be administered as medicines, (except such as are published in standard works of chemistry, materia medica, or pharmacopœia,) shall offer same for sale, in any way, until he has filed a complete recipe in English, sworn to before legal authority constituted for such purpose."

2, *Voted*, That a committee be appointed by this Association for the purpose of petitioning Congress and State Legislatures to enact regulations and laws similar to the above. Adopted.

Dr. Buck, N. Y., read a paper on morbid growths in the larynx, and exhibited a specimen, with report of the case. Referred to committee on publications.

Dr. Peaslee, of New Hampshire, offered the following resolution, which he accompanied with a few brief and appropriate remarks :—

Resolved, That it is the duty of the faculties to refuse to admit to examination, for the degree of Doctor, all persons who intend to engage in any other than the regular practice, and to give notice of this in their annual course of lectures.

Dr. Sayre said he thought the resolution was not calculated to effect the object it had in view. The best way, in his opinion, was to withdraw the diploma after it had been given, and in the event of its being used for the advancement of quackery. In conclusion he moved the following resolution as an amendment :—

Resolved, That a committee be appointed to memorialize the several State governments, in reference to the subject of diplomas to Medical men, and to petition them, in the name of the Association, for the passage of a law granting chartered medical colleges the privilege of retracting publicly the diplomas of any of their graduates, when, in the judgment of the medical faculty of the college or school granting such diplomas or certificates, they may have forfeited a right to the same.

A warm discussion ensued, in which Drs. Hooker, Conn., Atlee, Pa., Peaslee and others, took part.

On motion of Dr. Gooch, the resolution and amendment were laid on the table, and the Association adjourned on Thursday morning, at 9 o'clock.

Dr. W. Hooker, Connecticut, offered the following, which was adopted:

Resolved, That a committee of five be appointed, whose duty it shall be, in compliance with the suggestions of our late President, Dr. Wellford, to report our plans of organization for State and County Societies, and that the Committee be requested to report, if possible, during the present meeting of the Association.

Dr. Ziegler, of Pa., offered a preamble and the following Resolutions, which were referred to Committee on organizing State and County Societies.

Resolved, That the American Medical Association hereby reiterate the repeatedly previously expressed desire for the immediate formation and organization of County and State Medical Societies in every part of the country in which they have not yet been established.

Resolved, That every county Medical Society be, and is hereby recommended to dispense with the present system of acquiring members by the previous pro-formal manifestation of personal desire on the part of applicants for such association, and to substitute therefor that of the immediate and voluntary election to membership therein, of every unassociated eligible physician.

Resolved, That all physicians thus voluntarily elected, and subsequently neglecting or declining to respond to and unite themselves with the general profession, shall be considered as estimating their own personal views, and private relations and interests, above and in opposition to those of the profession generally, and, as thus antagonistic to its exalted objects, cannot, therefore, consistently expect the continued enjoyment of the usual rights and privileges of professional intercourse and fellowship.

Dr. N. S. Davis, of Illinois, reported at length, and lucidly, on the Medical literature of 1853. There are now published in the United States, twenty-eight medical periodicals, of which four are issued quarterly, six by-monthly, fifteen monthly, two semi-monthly, and one weekly. One of the monthlies is published in the German, at New York, and one in French at New Orleans. Of the aggregate number of pages published, about one half were original matter. This aggregate consists of the record of cases occurring under the observation of their writers, of which a very large proportion lose their value for lack of that fullness of detail and scope, which are essential to make them reliable data for the abstraction of practical deductions—articles embodying the statistical results of certain diseases and surgical operations, and essays on special subjects, and the details of experimental inquiries—of all which classes, some of the more important specimens were named in the report. It is believed that a decided improvement has taken place in this department of medical journalism during the past year. It is shown most distinctly in the most frequent reports of the use of the microscope and its application to physiological and pathological researches. But the report scores the journals for an abundance of material furnished of another order—crude, ill-digested essays, illogical, incomplete and consequently mischievous articles—which serve to advertise their writers' names and residence, and unwittingly their ignorance.

The review department of our medical periodicals is of all the most defective. There are a few honorable exceptions, but the large majority afford little more than a few meagre pages of booksellers' notices, serving to advertise the work whose title is given, and seldom affording any impression whatever of the character and contents of the book named.

The number of journals in this country is greater in proportion to the population than in any other. Whether we are gainers in their quality from this fact is very questionable, but this at least, it secures a greater number of professional readers. A very copious contribution to our medical literature is made in the form of the transactions of the State, County and other Medical Societies; the report hints that their character is decidedly superior to that of the average of the the original papers contributed to the journals.

Among the more valuable monographs that have issued from American authors during the year, are the treatises of Dr. Swett on the Chest; Dr. Flint on Continued Fever; Dr. Edward Coale, on Uterine displacement; Dr. H. H. Smith's Operative Surgery; Dr. Piper's Illustrated Surgery; Dr. Horace Green's Polypi of the Larynx and Oedema of the Glottis; Dr. Biddle's and Dr. Tully's *Materia Medica*; Dr. Dickson's Life, Sleep and Death, and Dr. Macall's Notes on Carpenter's Physiology. Besides these many new editions of standard American works and the revision and translations of many of foreign origin, shows that there is no lack of patronage of our home literature, nor lack of readers for professional works, either domestic or foreign. In matters of minutiae, in the details of analysis and of nice scientific discrimination, we have looked abroad for our medical teachings. But in the details of practice, in bold independent invective, and energetic thinking on medical topics—we are not copyists—nor in any respect imitators.

The defects of our medical literature are very obvious and readily traceable to their causes; to wit, a lack on the part of medical writers, of sufficient preliminary education, the absence of clear and definite perceptions of the fundamental principles of physiology and pathology, defective modes of investigation, and the epidemic haste shared by them with all other writers in our country, with which their productions are surrendered to the press. These difficulties will be remedied when the public sentiment of physicians has become what it ought to be; when medical critics are honest in expressing their convictions, and medical men avail themselves of the benefits that must accrue from the organization of their forces into local, State and National Associations.

The following he indicated as the principal means of advancing the standard of Medical Literature: 1. To adopt such means as would be calculated to encourage preliminary study on the part of students. 2. Greater strictness on the part of medical colleges in their examinations. 3. Offering premiums for the best original medical essays, by State and county Medical Societies. 4. Formation of medical libraries. 5. To labor for an international copy-right. The future

is bright for us, the past full of eloquent lessons. If we heed them, and do for the future what we ought, American Medical Literature will yet attain to an elevation corresponding with our country's social and political destiny.

Dr. S. Jackson, of Pennsylvania, stated that he had received a paper from a gentleman, on Electricity as applied to predictions of meteorological changes.

Dr. McNorton moved to refer to Committee on Spirit Rappers.— (Laughter.) Laid on the table.

Dr. Yandell, of Kentucky, offered the following which was adopted :—

Whereas, By the dispensation of an inscrutable Providence, Dr. Daniel Drake has been removed since the last annual meeting of this Association, from the scene of his earthly labors—

Resolved, That in the death of Dr. Drake, the American Medical Association has lost one of its most honored members, and the American Medical Profession one of its brightest ornaments.

Resolved, That his steady devotion to his profession through a long life, his zeal, activity, and unceasing efforts to advance its interests, afford an example worthy of the imitation of every young physician.

Resolved, That this Association will cherish the memory of Dr. Drake for his many virtues, and for his labors which have adorned and elevated our profession.

The resolutions were adopted by a rising vote.

The President read a resolution, offered by Dr. Cleaveland of Vermont, calling for the appointment of a committee to investigate the value of Galvanism as a therapeutic agent.

On motion of Dr. Gooch, the resolution was referred to Committee on nominations.

On motion of Dr. Palmer, of Virginia, the resolution offered yesterday, from the Virginia Medical Society, recommending the appointment of a Chemist, and laid on the table, was taken up for consideration.

Dr. Parker, of Virginia, offered the following as an amendment.

Resolved, That this Association recommend Congress to consider the propriety of passing a law compelling all importers of nostrums to state upon all compounds thus imported their true constituents and in English.

Resolved, That the Secretary be instructed to forward a copy of these resolutions to the Executive of the General Government.

An amendment to strike out the word "English" was accepted.

The first resolution was read by the Secretary.

Dr. Bond, of Baltimore, objected to the resolution, because it could do no good, and was likely to do a great deal of injury. He moved to lay on the table, but withdrew it to allow discussion.

Dr. Hooker, of Connecticut, said the facts from the State of Maine would answer the objections of Dr. Bond. An act had been passed there, which was found to be a death-blow to this system of quackery. But on petition of the people and clergy who were in favor of

encouraging it, the law was repealed. He wished parties to know what they swallowed.

Dr. Sayre, of New York, said that every notice that was taken of any such quackeries, only tended to advertise them, and could accomplish no useful purpose. He proposed to lay on the table. Lost.

Dr. Cox, of Maryland, never knew any good to follow prohibitory measures against quackery. In the State of Maryland, a set of quacks known as Thompsonians, flourished under prohibitory legislation, and died away when given every freedom and latitude. He believed the surest death-blow to quackery is to treat it with contempt and silence. It was unworthy of any grave notice from this Association. He believed the true remedy against quackery was to be found in attention to their Association.

Dr. Bolton, of Virginia, drew the attention of the Association to a resolution passed yesterday, thanking Dr. Winslow Lewis for his efforts in supporting a bill before the Massachusetts Legislature. There was a mistake in thinking that the resolution proposed to prohibit the sale of these quack medicines. It only proposed that the ingredients of which they were composed should be set forth on the label. This would divest the medicine of the great charm of mystery, which gave them such importance in the minds of the public. They would see that for a few pence they could procure some simple medicine ; which was the chief ingredient in the expensive bottle.

Dr. Richards, of Ohio, and Dr. Jackson, of Massachusetts, followed in opposition to the resolution. The analyzing of these nostrums, by order of the State, would be giving a sanction to their sale.

The reading of the resolution was called for, and a vote taken.

President—The nays are the loudest ; whether they are the more numerous, I cannot say.

The house was counted, and the resolution laid on the table.

Dr. Condie, of Pennsylvania, and Dr. Cox, of Maryland, offered the following resolutions which were adopted by a rising vote.

Resolved, That we have heard with sincere regret of the death of our late fellow member, Dr. Isaac Parrish, of Philadelphia, who was distinguished by his early and earnest advocacy of the establishment of this Association, by his ardent interest in its proceedings, and by his valuable contributions to its published proceedings.

Resolved, That in the demise of Dr. William E. Horner, which has occurred since the last annual session of this body, the American Medical Association has lost one of its illustrious and useful members ; and the science of medicine, an indefatigable student, and most distinguished teacher.

Resolved, That the memory of the gifted subjects of the resolutions, dear as it ever must be to the lovers of medical science universally, will be especially cherished by this Association, to whose great objects and aims, their last efforts were, during life, promptly and liberally bestowed.

Dr. Yandell, of Kentucky, presented a report received from Dr. S. D. Gross, Ky., on the results of Surgical operations for the relief of

Malignant diseases, which was referred to Committee on Publication. Dr. G. read a brief abstract.

From the facts and statements which have now been presented, embracing the opinions of many of the most intelligent, experienced, and distinguished practitioners in different ages, and in different parts of the world, the following conclusions may be legitimately deduced :

First—That cancerous affections, particularly those of the mammary gland, have always, with a few rare exceptions, been regarded by practitioners, as incurable by the knife and escharotics. This opinion, commencing with Hipocrates, the father of medicine, has prevailed from the earliest records of the profession, to the present moment.—Nature never cures a disease of the kind ; nor can this be effected by any medicine, or internal remedies known to the profession.

Secondly—That excision, however early and thoroughly executed, is nearly always, in genuine cancer, followed by relapse, at a period varying from a few weeks to several months, from the operation.

Thirdly—That nearly all practitioners, from the time of Hippocrates to the present day, have been, and still are averse to any operation for the removal of cancerous tumors, after the establishment of ulceration, rapid growth, firm adhesion, organic change in the skin, lymphatic invasion, the cancerous dyscracy, or serious constitutional derangements ; on the ground that, if had recourse to, under these circumstances, the malady almost invariably recurs in a very short time, and frequently destroys the patient more rapidly than when it is permitted to pursue its own course.

Fourthly—That in all cases of *acute* carcinoma, or, in other words, in all cases of this disease, attended with very rapid development and great bulk of the tumor, extirpation is improper and unjustifiable, inasmuch as it will only tend to expedite the fatal result, which, under such circumstances, always takes place in a very short time.

Fifthly—That all operations performed for the removal of encephaloid cancer and its different varieties, are more certainly followed by rapid relapse than operations performed upon a schirrus or hard cancer.

Sixthly—That in nearly all the operations for cancerous diseases, hitherto reported, the history has been imperfectly presented, being deficient in the details which are necessary to a complete and thorough understanding of the subject in each case. This remark is particularly true in reference to the diagnosis of the malady, the minute examination of the morbid structure, and the history of the case after the operation, as to the period of relapse, the time and nature of the patient's death, and the result of the post-mortem examination.

Seventhly—That cancerous affections of the lip and skin, now usually described under the name of cancrroid diseases, are less liable to relapse after extirpation than genuine cancerous maladies, or those which are characterized by the existence of the cancer cell and cancer-juice.

Eighthly—That, although practitioners have always been aware,

from the earliest professional records, of the great liability of cancer to relapse after extirpation, a great majority of them have always been, and still are, in favor of operation in the early stage of the disease, especially in schirrus, before the tumor has made much progress, or before there is any disease of the lymphatic ganglions, or evidence of the cancerous cachexy.

Ninthly—That many cases of tumors, especially tumors of the breast and testicle, supposed to be cancerous, are in reality not cancerous, but of a benign character, and consequently, readily curable by ablation, whether effected by the knife or by escharotics. It is to this circumstance that we must ascribe the astonishing success which is said to have attended the practice of Hill, of Scotland, Nooth, of England, and Flajani, of Italy.

Tenthly—That all operations insist upon the most thorough excision possible ; removing not merely the diseased mass, but also a portion of the surrounding and apparently healthy tissues, as well as the enlarged and indurated ganglions.

Eleventhly—That the practice has always prevailed, and still obtains, to save, if possible, a sufficient amount of healthy integument to cover the wound, and if possible, to unite it, by the first intention ; on the ground that these precautions will tend much to retard, if not prevent, a recurrence of the disease.

Twelfthly—That much stress is laid by writers upon a properly regulated diet, and attention to the bowels and secretions after operation, as means of retarding and preventing relapse.

Thirteenthly—That there is no remedy, medicine or method of treatment which has the power, so far as we are able to judge of its virtues, of preventing the reproduction of the morbid action after operation, no matter how thoroughly it may be performed.

Fourteenthly—That life has occasionally been prolonged and even saved by operation after relapse, as in some of the remarkable cases mentioned in a previous part of this report ; but that, as a general rule, such a procedure is as incompetent to effect a permanent cure as a first extirpation.

Dr. Blatchford, of New York, moved to have a resolution offered yesterday, on the licencing power, with amendments by Dr. Garnett, taken up for consideration.

Dr. Hooker, of Conn., spoke to the subject of the resolutions. We would expose individual cases without referring to the Colleges or individuals, by name. The object of such an Association as this, was not to be personal, but to reform abuses. Dr. H. cited several cases, for which he stated he had the best authority, in which young men had been allowed to graduate after terms of study under one year. Four of these cases, were from schools very prominent in the community. If such instances as he had stated had come without inquiry, was it not probable that if a searching inquiry were instituted numerous such abuses would be discovered. The cause of this was in a great degree, owing to the competition between schools. He wished that the subject would be brought before a Committee ;

and he thought the remedy proposed in Dr. Garnett's amendment, would prove efficacious.

Dr. Johnson, of St. Louis, was happy the subject had come before this Association. He was sorry the gentleman had not given the instances he referred to; for he was confident that the Association was composed of gentlemen who would have an influence in preventing such abuses. In Missouri, they had memorialized the Legislature, and found that no hope for any measure to protect the Medical Faculty, could be expected from the Legislature. The Association would, in itself have a much greater influence, by denying those scholars which acted in the manner described, a place on this floor. The moral power of this Association, if exercised, would have the effect of keeping members of the profession from such practices.

Dr. Atlee, of Pa., rose to prevent a discussion on the subject, which could lead to no practical good for the present. The evil was a very great one, and he hoped the whole subject would be referred to a Committee to make their report at the next meeting.

The subject was referred to the following Committee: Drs. Samuel Jackson, T. Blatchford, Johnson, of Mississippi, [St. Louis?]; Peaselee, of New Hampshire.

Dr. Alfred Stille, Chairman of the Committee to whom was referred sundry memorials touching the course to be pursued by Medical Colleges and other Boards in the examination of candidates and the granting of diplomas, reported, submitting the following resolutions for adoption:

Resolved, That in order to preserve the purity and honor of the Medical Profession, and to place around young practitioners additional safeguards against temptations to do wrong, as well as to draw a more distinct line of separation between true and false physicians, it be and is hereby recommended, that every graduate in medicine be required to subscribe a pledge to submit to the revocation of his diploma upon conviction of having knowingly violated the Code of Ethics of this association. It is also recommended to the several Medical Colleges and such other Boards as are by law authorized to examine candidates for admission into the Medical Profession, to require from every graduate or licentiate his signature to the Code of Ethics of this Association, and to furnish him with a copy of the same. It is further recommended that the formal administration of a pledge faithfully to observe and keep the said Code, form part of the public exercises of Medical Commencements.

The following form of promise was among the documents referred to Committee on Pledge.

I, A. B., of——, in the State of——, do hereby promise on the honor of a gentleman, that I will conform strictly to the Code of Ethics of this my Alma Mater in all things pertaining to the practice of my profession; and when I shall fail to do so, I hereby grant to the Faculty of said School full power and authority to withdraw said Diploma, and all the rights and privileges which it is intended to confer.

Dr. Palmer and other delegates opposed that part of the report proposing to clothe Colleges with the power of revoking diplomas for a breach of the "Code of Ethics."

Several motions and counter-motions were made. The Chairman decided on the right of the Committee to withdraw the objectionable resolution, when the second and third recommendations of the report were adopted.

Dr. Sayre, of New York, moved that the resolution be taken up, and passed as the sense of the meeting. It was taken up and referred to Committee.

Dr. Palmer moved the following, which was adopted :

Resolved, That the Standing Committee, of which Dr. Bolton is Chairman, be instructed to inquire into all cases of death that may be reported as occurring from the use of anæsthetic agents during the present year in the United States, and report to the next meeting of the Association.

Dr. J. M. Smith, of New York, read the following

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations, in fulfilling the duty of their appointment, propose to continue most of the Special Committees appointed by the Association, in May, 1851, and May, 1852, and to appoint several new Special Committees. They, therefore, submitted the following list of chairman of Special Committees, with the subjects to them committed.

1. Dr. D. F. Condie, of Philadelphia, Penn., "On the Causes of Tubercular Disease."
2. Dr. James Jones of New Orleans, La., "On the Mutual Relations of Yellow and Billious Remittent Fever."
3. Dr. R. S. Holmes, of St. Louis, Mo., "On Epidemic Erysipelas."
4. Dr. Geo. B Wood, of Philadelphia, Penn., "On Diseases of Parasitic Origin."
5. Dr. R. D. Arnold, of Savannah, Ga., "On the Physiological Peculiarities and Diseases of Negroes."
6. Dr. James R. Wood, of New York, "On Statistics of the Operation for the removal of Stone in the Bladder."
7. Dr. F. Peyre Porcher, of Charleston, S. C., "On Toxicological and Medicinal Properties of our Cryptogamic Plants"
8. Dr. Goodrich A. Wilson, of Virginia, "On Cholera, and its Relation to Congestive Fever—their Analogy or Identity."
9. Dr. Worthington Hooker, of Conn., "On Epidemics of New England and N. Y."
10. Dr. John L. Atlee, of Lancaster, Penn., "On Epidemics of New Jersey, Pennsylvania, Delaware and Maryland."
11. Dr. D. J. Cain, of Charleston, S. C., "On Epidemics of Virginia, North Carolina, South Carolina, Georgia and Florida."
12. Dr. W. L. Sutton, of Georgetown, Ky., "On Epidemics of Tennessee and Kentucky."

13. Dr. Thomas Reyburn, of St. Louis, Mo., "On Epidemics of Missouri, Illinois, Iowa, and Wisconsin."

14. Dr. George Mendenhall, of Cincinnati, Ohio, "On Epidemics of Ohio, Indiana and Michigan."

15. Dr. E. D. Fenner, of New Orleans, La., "On Epidemics of Mississippi, Louisiana, Texas and Arkansas."

16. Dr. Charles A. Lee, of New York, "On Domestic Hygiene."

17. Dr. Daniel Brainard, of Chicago, Ill., "On the Constitutional and Local Treatment of Carcinoma."

18. Dr. N. S. Davis, of Chicago, Ill., "On the Influence of local Circumstances on the origin and prevalence of Typhoid Fever."

19. Dr. George Engleman, of St. Louis, Mo., "On the Influence of Geological Formation on the character of Disease."

20. Dr. Henry M. Bullitt, of Louisville, Ky., "On the use and effect of applications of Nitrate of Silver to the throat, either in local or general diseases."

21. Dr. Robert Campbell, of Augusta, Ga. "On the Pathogenic Influence of feather Beds."

22. Dr. James Bolton, of Richmond, Va., "On the Administration of Anæsthetic Agents during Puncture."

23. Dr. Henry Taylor, of Mount Clemens, Michigan, "On Dysentery."

24. Dr. F. Donaldson, of Baltimore, Maryland, "On the Present and Prospective Value of the Microscope in Disease."

25. Dr. R. L. Howard, of Columbus, Ohio, "On the Pathology and Treatment of Scrofula."

Committee on Plans of Organization for State and County Societies.—Isaac Hays, M. D., of Penn., Chairman.

Committee on Medical Literature.—T. S. Bell, M. D., of Ky., Chairman.

Committee on Medical Education.—B. R. Wellford, M. D., of Va., Chairman.

The President congratulated members on the close of their deliberations, and expressed his wish that they should all meet at St. Louis, next year.

The Association then adjourned *sine die*.

ART. LXVII.—EPIDEMIC ERYSIPELATOUS FEVER, AS IT HAS PREVAILED AT SHREVEPORT, LA., IN THE SPRING OF 1853.

By R. L. SCRUGGS, M. D., Corresponding Editor.

If we consider only the number of cases of this disease that have occurred amongst us since its advent, it would hardly seem to justify us in applying to it the name of Epidemic; but the character of the cases, and the manner of their occurrence, unquestionably entitle it

to that appellation. We have had only twelve cases, the first appearing on the 14th of January, and the last on the 13th of April. Of these only one case terminated fatally; notwithstanding which, strange to say, it produced a greater panic in our little city than would have been caused by fifty cases of Cholera, proving the correctness of the saying, that "men fear death less than the manner of dying." The soldier who has become familiar with the terrible scenes of the battle field, faces that kind of danger, not only without fear, but with positive pleasure, while he would tremble at the sight of a case of loathsome disease, particularly if he believed it to be contagious. The physician, in his turn, experiences a certain degree of pleasure in grappling with all kinds of diseases, the pleasure being enhanced in proportion to the gravity of the case. The more intricate and difficult the disease, the greater the interest it possesses for him, provided he has confidence in himself, and in the science of Medicine.

Although but few cases of Cholera have occurred here amongst the resident population for the past three years, yet a sufficient number have been landed from the steamers, from time to time, to familiarize our people somewhat with this dire scourge, so that, now, if it were known that a dozen or two cases of Cholera had been landed from the boats amongst us, it would excite little or no interest in the minds of any portion of the community, except probably the physicians.—But not so with "Big Head" or "Black Tongue"—this was a disease that they had all heard of with probably exaggerated accounts of its fatality, in different parts of the country, while few of them had ever seen a case, and consequently they dreaded it as they would the approach of an enemy with whom they knew not how to contend.

Notwithstanding we have had all, or nearly all the exanthematous fevers since 1850, as well as the furunculoid epidemic, which has prevailed so extensively throughout the world for several years past, with its accompanying carbuncles and paronychias; but no case of Erysipelas involving the face, head and mouth has ever occurred here before, since the first settlement of the country, so far as I am informed. Previously, however, to the occurrence of these cases, I met with a considerable number of cases of swelling of the parotid, submaxillary and tonsil glands, accompanied with more or less fever. All of these cases yielded quickly to local depletion, with general antiphlogistic treatment.

On the 31st day of August last, I was called in great haste to a patient living ten miles above town. I found him perfectly exsanguine, cold and pulseless. Two physicians were in attendance, who

had been hurriedly summoned, like myself, a few hours before. It seemed that the patient, a boy 15 years of age, had been attacked ten days previously with swelling of the right sub-maxillary gland, and his friends regarding it as a matter of little consequence, neglected to use any means whatever, to moderate the inflammation of the part, which, continuing with increased intensity, finally terminated in mortification, laying open one or more arteries from which the patient bled to death in fourteen hours from the time the hemorrhage commenced, and two hours after my arrival.

This would seem to show that although the disease could be easily managed, yet it could not be entirely neglected with impunity.

Of the twelve cases of Erysipelas which occurred here, eleven were treated by me, all of which recovered. The case which terminated fatally I did not see. It was a young man, about 21 or 22 years old. Seven of the eleven cases were males and four females; two blacks, one male and the other a female. Their ages ranged from 18 to 55 years. The duration of the disease was from seven to fifteen days.—The cases which lasted longer than seven days, with one exception, had existed for several days before I saw them. The inflammation usually commenced in the nasal cavities, and extended, both ways, into the mouth and fauces, and creeping out of the nose, sweeping rapidly over the face, closing the eyes, and extending over the scalp.—The character of the fever which accompanied it was periodic in eight of the cases, Typhoid in the other three—these latter having the characteristic discharges from the bowels, tympanitis, muttering delirium, &c. I had for the first time two cases of relapse. After these patients appeared to be quite well, from exposure to the atmosphere, the disease commenced at its original starting point, and swept rapidly over the face and head; and although the swelling was greater than at first, it did not present the characteristic hard feel to the touch as at first, nor did the patients suffer the same amount of constitutional disturbance.

The question as to whether the disease was contagious, was frequently asked me, and I was under the necessity of answering rather evasively, not being perfectly satisfied upon that point myself. With two exceptions, individuals were attacked in different parts of the town, remote from each other, who had never seen a case of the disease. The two cases alluded to, were nurses who had each attended a case of the disease. One was a white woman, between 50 and 60 years of age, and the other a negro boy about 20 years old. Both of these nurses were attacked in the same manner; and the progress

and termination of the disease in them was the same as in the persons waited upon by them.

The most interesting part of the subject remains to be discussed, to-wit, the treatment. And here I would desire to claim for my plan of treatment the especial consideration of the profession ; and if with this view, I state that I have treated a large number of cases in Tennessee, and in this country, at different times, without having the misfortune of losing a single case, and this too at times when the disease proved very fatal in the hands of others, I trust that I will not thereby incur the imputation of vanity and presumption.

I generally commence the treatment with a brisk cathartic, composed of comp. ext. colocynth, calomel and ipecac : unless it is contradicted by the state of the bowels ; after which the bowels are kept soluble with saline cathartics, (the preference being generally given to Seidlitz Powder,) and this is continued, *pro re nata*, throughout the continuance of the disease unless the discharges should become too frequent, watery, mucous or bloody, in which event, tea-spoonful doses of oil and turpentine, or small doses of turpentine emulsion, made with gum arabic and loaf sugar, are substituted for the salts ; to each dose of which may be added a few drops of tinct. opii., but this must be done with caution.

The head symptoms must be carefully watched, it being better to permit the discharges from the bowels to continue very frequent, and even bloody, than to resort to opiates or astringents, if there be coma or any other very threatening symptoms about the brain. For the bowel affection, we must, under such circumstances, content ourselves with the use of the cups, hot fomentations, warm cataplasms, and frictions, with some stimulating liniment. Whenever, in the course of the disease, the brain suffers, it may be relieved by a sufficient abstraction of blood with the cups from the temples, and from behind the ears, assisted by hot sinapised pediluvia ; but this is not likely to occur when the proper general treatment has been established at the beginning, and the necessary depletions made directly from the inflamed parts in the manner hereafter to be described.

I regard it as a matter of the utmost importance, to recognize early the character of the accompanying fever. If it be periodic, quinine will arrest it with as much certainty as it will an ordinary chill ; but if it be typhoid, quinine will prove positively injurious. In these latter cases I give Madeira wine sweetened and diluted to suit the taste of the patient. This is allowed in the morning, when the pulse is feeble, to be discontinued during the evening paroxysm. This is not only

very grateful to the patient, but often very favorably modifies the heart's action.

In an article published in the Philadelphia Medical Examiner, for April, 1849, upon the use of Chlorate of Potash in the treatment of "Black Tongue," I make the following remarks: "In endeavoring to decide upon some plan of treatment that would seem to offer some better hope of success than that hitherto resorted to, I bethought me of the article Chlorate of Potash, as used by Watson and others, in the treatment of scarlatina maligna, and to my great delight, I found it to answer an admirable purpose." Additional opportunities of observation, I am happy now to be able to state, have fully confirmed me in the high estimation I then placed upon this article. I find it very valuable in the treatment of acute mercurial ptyalism, aphthæ, and indeed the acute stage of all inflammations of the buccal mucous membrane; but its virtues are more particularly displayed in Erysipelatous inflammation of these parts. A tea spoonful of the salt is to be dissolved in half a teacup of water, and used as a gargle frequently through the day, and the same quantity dissolved in a pint of water may sometimes be advantageously taken as a drink in the twenty-four hours.

We now come to speak of the local treatment of the disease as it appears externally; and first of local depletion. So thoroughly convinced am I of the importance of this measure, in all cases, that I am almost prepared to assert that, if carried out properly at the very commencement of an attack, we should rarely or never see a case of phleginonous or gangrenous variety of the disease. In no instance have I seen vessicular phlycteroid eruptions or suppurations, when I have been called early to a case, and depleted the parts sufficiently, whereas in those cases that had run on for several days before I saw them, extensive suppurations and sloughing of the fasciæ and muscles has frequently been the consequence.

When the swelling about the glands is considerable, I scarify and cup most thoroughly, and in those parts about the face and head where cups can not be applied, I scarify the parts with a sharp lancet or scalpel, and encourage the bleeding with applications of cloths wrung out of warm water. In this way a sufficient amount of blood may be got out to relieve the turgescence of the parts, and thus give much comfort to the suffering patient. After this, paint the parts thoroughly with comp. tinct. iodine. This is decidedly the best external application that can be made. I have tried the nitrate of silver, sulph. iron, and a variety of other external remedies, but after

a fair trial of them all, I give the decided preference to the strong tinct. iodine. This should be applied with a short camel's hair pencil several times a day, not only over the whole of the diseased parts, but for some distance beyond them. Should the inflammation extend to the hairy scalp in spite of all our efforts to arrest it, which it will frequently do, be not discouraged, but apply the tincture freely, and continue its application until the inflammation yields.

In making the incisions above alluded to, it is proper to remark that they may be made on any part of the face without necessarily leaving an unsightly scar or cicatrix. When desquamation of the cuticle takes place, if these incisions have been made with a sharp instrument, no scar or other evidence remains of the knife's having been used, the face is left perfectly smooth. In this tender condition of the skin, it ought to be protected with starch, or flour, for several days, particularly if the patient is exposed to the open air.

Although the application of the tinct. upon healthy tissues is somewhat painful, particularly when made to scarified parts, yet when applied to this disease, so far from the patients complaining of it, they express themselves as being relieved by it from the intolerable burning sensations produced by the disease.

In conclusion, I would warn the young practioner against fixing his mind too exclusively upon the external disease. The proper treatment of this is certainly important ; but the accompanying febrile disturbance of the system, and the complications which so frequently supervene upon, or accompany the disease from the beginning ; such as pneumonia, pleuritic, inflammation of the stomach, bowels, &c. ; will all claim his most careful attention, and should never be lost sight of by him for a single moment.

In my next, I shall endeavor to offer some views upon the pathology and treatment of the vomiting of pregnant women ; which, if not absolutely new, will nevertheless, I trust, be interesting and instructive to at least a portion of the readers of the Journal.

DEPARTMENT OF CHEMISTRY AND PHARMACY.

ART. LXVIII.—PHARMACY IN NASHVILLE.

Philadelphia, May 20, 1853.

TO DR. R. O. CURREY, NASHVILLE, TENN :—

At the late National Convention of Druggists and Apothecaries, at which the American Pharmaceutical Association was organized, a resolution was adopted, referring to the several local Associations the collection of statistical information in relation to the trade throughout the United States.

The undersigned having been appointed by the Philadelphia College of Pharmacy to carry out the object as far as relates to Pennsylvania, Delaware, and the western division of New Jersey, take the liberty of addressing you on the subject.

As the object in view is to promote the interest of our Profession, and the honor and usefulness of its members throughout the whole country, we respectfully solicit your co-operation in this effort to obtain correct information in regard to its present condition.

We append several Queries, which we should be glad to have returned to us with answers, as far as it is in your power to furnish them, accompanied by any remarks and suggestions, the result of your observation and experience, which may throw light upon the condition of the Drug Business in your vicinity, and may lead to the adoption of salutary reforms.

Respectfully

EDWARD PARISH. WILLIAM PROCTER JR. AMBROSE SMITH.	}	Committee.
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(Accompanying the foregoing circular, we received the following note from Prof. Proctor. Our reply to which is found in detail to each question.)

TO DR. R. O. CURREY,

Dear Sir : I trust in asking so much of your time as will be required to fill the blanks opposite the queries, you will not deem it an im-

position. Your position in Nashville will no doubt afford you ample opportunity to do so, and should your leisure permit, I feel assured you will oblige us.

Yours truly,

W. PROCTER, JR.

PROF. WM. PROCTER :

Dear Sir : I was aware that the last American Pharmaceutical Association had appointed a committee to collect statistical information in relation to the trade throughout the United States. Your letter of the 20th inst., bringing the subject directly before me, has been received, and I avail myself of the leisure allowed me in the intervals of business to report to your interrogatories.

1st. "*It is asked how many persons in Nashville, Tennessee, prepare and sell standard medicines, as their principal business, and how many connect the sale of medicines with general merchandize ?*"

There are in our city thirteen Drug Stores, conducting both the wholesale and retail business, and the estimated amount of sales during the past year was \$250,000. There are also in our city three establishments exclusively devoted to the manufacture and sale of quack medicines. There is no attempt made to supply the market with Pharmaceutical preparations, otherwise than with Tinctures, Syrups, Ointments, &c. No Drug Store in the city has connected with it a Laboratory in the true sense of the word. Our principal reliance for choice chemicals and pharmaceutical preparations, is upon the eastern cities. All keep a supply of the choicest medicinal agents, though limited, as the demand has not been very great, owing to their costliness. However, select and extra powders, extracts and chemicals are fast gaining favor, as cost should be of no consideration where reputation and life are concerned. In all there may be found a greater or less supply of toys, fancy articles, grass and garden seeds and implements, earthenware, patent medicines, &c., &c. Yet no one connects this business with general merchandize. This is not true of some establishments in our country towns, many connecting drugs with dry goods, and others with books, and others with the practice of medicine. There are in Tennessee about 85 drug stores, not estimating those dry good and other stores, which keep a greater or less supply of some sort of medicines for the convenience of their customers. In such, it cannot be denied that the supply was procured more with reference to cheapness than purity.

2nd. *"To what extent do your druggists and apothecaries employ the U. S. Pharmacopæia as their standard authority, and use the official weights and measures?"*

This standard, and these weights are exclusively used by us.

3rd. *"Do physicians generally send their prescriptions to the apothecaries, or do they furnish medicines themselves?"*

Until within the last five years, the physicians in our city and vicinity dispensed their own medicines. They are now abandoning that course, though a few are yet to be found engaged in the trade. In the country, however, physicians are necessarily compelled to keep a general supply of medicines, and with but few exceptions, purchase the finest and best. In my capacity as a druggist, I have occasionally been applied to for a cheaper quality of medicines. In filling the prescriptions from our city physicians it is generally expected that no medicine will be dispensed by the apothecary, except those of undoubted purity. There is a sad deficiency, however, in this respect, among some of each profession. I have not the least doubt that some physicians are deterred from the prescription practice, through fear of exposing their ignorance of the true art of prescribing, several points of interest being involved in every prescription, such as the order of compounding, the legible writing, the correct spelling, as well as the risk of incompatibles; much less risk of exposure is run by acting as one's own dispenser. But it is no less true that our physicians have in a great degree been reluctant to confide their prescriptions to the hands of a druggist, for fear that it would be handed over to an inexperienced assistant, especially as serious mistakes have sometimes been made. Inexperience, especially when there is a deficiency in the proper educational training, is apt to lead to mistakes, consequently the greatest encouragement is given to those of our druggists who have made all the necessary arrangements for dispensing prescriptions, and who employ competent prescriptionists to superintend that department.

We are not however so lamentably deficient as was stated in a recent number of a Tennessee Medical Journal, in which the writer excusing the physicians for not pursuing the prescription practice, states that as soon as our assistants "can tie a neat bundle, and read some of the Latin labels upon the jars, he makes his debut behind the counter, and in a few months is sufficiently versed in the mysteries of Θ , Σ , Ξ , to officiate at the prescription case." If such were the case generally it would be a sufficient reason why the prescription department of our drug stores should not be encouraged. But here in this

city, I speak knowingly, when I state that in every house where the business of compounding prescriptions is regularly pursued as a part of the establishment, a prescription case is erected, filled with the purest and best, and a prescriptionist placed in charge of it almost exclusively. It is this fact which is commending the practice so favorably to our physicians.

The relative duties of the apothecary and the physician, as also the relation they sustain to each other, is beginning to be understood and appreciated. And the importance of an elevated standard of education for the one as well as the other, is admitted on all sides. This leads to

4th. "*Have the Apothecaries and Druggists formed any association for mutual advantage, or for educational purposes?*"

They have not. Our Druggists generally are as intelligent as any other portion of the community, and as enterprising—but there is needed among us a *commune vinculum* to bind us together. All of us are disposed to put a higher estimate upon the *profits* of the business than the interest and the promotion of Pharmacy. In a recent report to the Tennessee Medical Society, I alluded to the importance of an elevated standard of education as well for the Pharmaceutist as for the Physician, and threw out the suggestion, that, as no institutions were established in the West for giving instruction in Pharmacy, it might be judicious to create in our medical schools a *collateral* Professorship of theoretical and practical Pharmacy, which, in connection with the Professorships of Chemistry and of Materia Medica, would afford full advantages to the students of Pharmacy. The creation of such a Professorship, or the establishment of a College of Pharmacy with a full corps of Professors, must be effected before Pharmacy can ever attain to its proper importance as a science akin to medicine. And the idea having been advanced by a learned Professor in our Medical School, that Nashville and Philadelphia were the two grand centers of Medical Science in the United States, may they not, as a matter of course, be regarded in the same light, as far as Pharmacy is concerned? Nashville or some other point is to be in the Mississippi Valley what Philadelphia with her Medical and Pharmaceutical Colleges is east of the Allegheny.

The means of acquiring a knowledge of Pharmacy, theoretical and practical, of experimental Chemistry, and the kindred sciences, are not enjoyed in this community; and we sadly feel the want of them. Matters can not long remain in this condition. Pharmacy is a true science, and for its proper prosecution requires as much the workings

of the mind as of the hands. He is no more a Pharmaceutist who bases all his knowledge of the science upon his capacity as a business man, or as an expert salesman, than he is a physician who is engaged in the selling of medical books. Each may be able to judge of the quality or merits of the article in which they traffic, but are not for that reason to be reckoned as scientific pharmaceutists, or learned physicians.

So many sciences contribute to the progress of Pharmacy, that it may be regarded as the *Scientia omnium Scientiarum*. The one and the other traverse nature's domain, and cull her choicest flowers, extract her purest gems and resins, ransack her mineral treasures, and elaborate them in her crucibles and retorts as precious gifts at the shrine of Pharmacy to be presented to medical science for the relief of suffering and for the cure of disease.

5th. "*What information have you in relation to the prevalence of Quackery; its increase or diminution: the sale of poisons, or other subjects relating to our business, likely to be interesting?*"

In answering this query, I have necessarily to traverse a very extensive field. But I will be brief.—1st. In reference to Quackery. It is to be feared that it is on the increase. This is as much a matter of regret with Pharmaceutists, as with Physicians. They are generally made the agents for the sale of these nostrums, and the determination of Quackery to succeed, is seen in the plan adopted for the distribution of its compounds.

The proprietor, having prepared his compound, adopts a style of package peculiarly his own, and at great expense, gets up a splendid circular, and cards. An agent is employed to travel over the country, offering the newly discovered remedy at liberal rates, free of carriage, giving assurances that he has just made engagements with the nearest printing establishment to keep a flaming advertisement standing in a conspicuous place, to which the names of all his agents are to be appended. Surely a cheap mode of advertising to the world that one is a Druggist—an argumentum ad captandum that is actually advanced.

In addition to all this, during a stay in any place, every issue from the press contains an eloquent and special notice, done up in editorial style, setting forth the virtues and efficacy of the potent remedy, and the climax is attained if the certificate of some good natured divine, who would not refuse so small a favor, is appended thereto. And Druggists have too willingly—shall I say for profit sake—allowed themselves to be duped by these Quacks. An unholy alliance has thus been con-

summed between Pharmacy and Quackery. But the one is as far beyond the other as Chemistry, with its bright day-truths, is from the dark and superstitious Alchemy of the ancients. Both Quackery and Alchemy are the fruits of ignorance, fostered alike by credulity and superstition. What sort of affinity can there be between true Science and Quackery, other than that which arises from profit? And the day is not far distant when it will be as disreputable for a Pharmaceutist to pollute his hands with patent nostrums, as it is for a physician to descend from his dignified position to engage in their manufacture or use. The Tennessee Medical Society at its recent session, passed a resolution appointing a committee to memorialize our next Legislative Assembly on the sale of secret medicines, praying the passage of a law requiring the manufacturers or agents of every secret nostrum, to file in the office of the Secretary of State, a correct and certified copy of the recipe according to which it is compounded. What the result will be, time only will show.

2d. The sale of poisons. There are no State laws regulating this subject. Our Druggists are generally very careful in their sale, and no one would, knowingly, sell such for criminal purposes. We refuse to minors and servants, unless by order from their guardians or owners.

Excuse the length to which these answers have been extended, much farther than I intended when I first commenced, and will only add, that I wish the Pharmaceutical Association the greatest success in their laudable efforts to advance Pharmacy in the United States.

Respectfully,

RICHARD O. CURREY.

Nashville, June 16, 1853.

ART. LXIX.—PHARMACEUTICAL NOTICES.

Aconite Plaster in Neuralgia.—A plaster made after the following formula, by the editor of the American Journal of Pharmacy, for Dr. Smith, of Philadelphia, has been employed in several cases of neuralgia, especially of the head. The effects were so decided, in some instances, as to require the removal of the plaster for a time.

R. Aconite root, in coarse powder, ℥iv.

Alcohol, sp. gr. .835 q.s.

Adhesive plaster, ℥ijjss.

Moisten the powdered aconite root with six ounces of alcohol, and

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permit it to macerate for 24 hours—then put it in a small displacer, and when properly packed, pour on gradually sufficient alcohol to make a pint of tincture. Distil off three-fourths of the alcohol, evaporate the residue in a water bath to a thick syrupy consistence, then add the plaster, previously liquified, and stir constantly, until it is properly incorporated with the soft, resinous extract, and cools. It should then have a brown color, homogenous consistence, and weigh about four ounces. For use, spread a sheep skin, or oiled silk, and continue till the effects of aconite, as heat and tingling, or prickling of the skin, are apparent.

Compound Wine of Gentian and Iron, commonly called *Black Bottle*.—A prescription was introduced, several years ago, into the medical practice of this city, by the late Dr. Wm. P. Lawrence, and for its efficacy as a tonic, especially in cases of female debility, it has become quite popular. It is very frequently called for, and we cordially recommend it to the profession at large. We give two formulas for its preparation :

R. Compound wine of gentian, Oiss.

(Made by adding to a pint and a half of sherry wine, a half ounce of orange peel, and a half ounce of powdered gentian. Let it stand for a few days, and filter.)

Precip. carb. iron, ℥iss.

Mix. Dose one tablespoonfull an hour before each meal :

Or, R. Precip. carb. iron, ℥iss.

Powdered gentian, ℥ss.

Orange peel, ℥ss.

Port wine, Oiss.

M. Dose as before—shake up before using.

Liquid to Preserve Dead Bodies.—According to M. Suquet, bodies may be preserved from decomposition by the following injection :—Pass into a solution of carb. soda, sp. gr. 20 deg. Baume, a current of sulphurous acid, obtained by heating a mixture of sulphuric acid and saw dust, until it has displaced the carbonic acid ; when the solution will have sp. gr. 24 deg. Baume. It is then poured into a tub containing zinc filings, and allowed to remain until it becomes neutral, which is known by its not affecting polished steel, when, after being dipped into it, it is exposed to the air.

A gallon to a gallon and a half is necessary for one body, which should be thrown in by one of the carotid arteries.—*Journal de Chem. Med.*

(The following are the results, as we suppose, of the foregoing combinations :

Carbonate soda,	}	resulting in {	Carbonic acid (escaping)
Sulphurous acid in excess,			Super sulphite soda.
Supersulphite soda,	}		Neutral sulphite soda,
Zinc filings,			Sulphite Zinc.

It will be seen, therefore, that this is a good antiseptic—all of its ingredients possessing that virtue.

Mixtures, or other Medicinal Preparations containing Gum Resins.—The Gum Resins, such as myrrh, ammoniacum, assafoetida and others may be thus suspended in mixtures, &c. On adding 6 or 8 drops of pure, sweet almond oil to a very small quantity of the gum resin employed, it forms into a mass by trituration in a mortar ; and when the oil and gum resin have become thoroughly incorporated together, the result is a smooth paste, to which the vehicle in which it is intended the gum resin shall be administered, is to be added very gradually. By this method heat may be employed, without causing coagulation, which is not the case by the usual process of using the yolk of an egg.—*Annals of Pharmacy.*

Tinctures—Saccharated Medicinal Powders.—Several weighty objections may be urged against the free use of tinctures in medical practice. These consist not only in their variable strength, and of course the uncertainty of their effect ; but it is frequently the case that the alcohol is contra-indicated in the disease for which they are administered. This effect as a diffusible stimulant, therefore, more than counterbalances the advantage which might otherwise be gained from the minutely divided medicinal agent. Any mode, therefore, that can be adopted for conveying the remedy in an equally sub-divided state, at the same time retaining all the active principles of the medicine, would be gladly welcomed and universally adopted. In the annals of Pharmacy, we find a substitute in what the author calls *saccharated medicinal powders*. By his direction any of the tinctures may be taken, and adding to it an equal proportion of sugar, mix them well together, and evaporate so as to drive off the alcohol. This may be carried to the extent of either a consistent syrup or a dry powder.

Pagliarisi's Homostatic.—The composition of this powerful styptic has at last been revealed by its inventor.

Tinct. Benzoin, - 8oz.

Alum, - - - 1lb.

Water, - - - 10lbs.

Mix and boil for six hours in a glazed earthen vessel, replacing the

vaporized water constantly with hot water, so as not to interrupt the ebullition, and the resinous mass kept stirred around. It is limpid, slightly styptic in taste, aromatic odor, and of the color of Champagne. Instantaneous coagulation takes place, if a drop is added to a glass of freshly drawn human blood. It arrests hemorrhage in parts where no ligature can be applied, either in deep seated wounds, or where it results from capillary arteries or veins.

Kousso—*Brayera Anthelmintica*.—On the highlands of Abyssinia is found a tree whose flowers possess valuable anthelmintic properties; by the natives it is called kousso—but has received its botanical appellation from Dr. Brayer, a distinguished French physician, who introduced it to medical notice. The specimen before us possesses an aromatic odor, similar to that of senna. They bear a faint resemblance to hops, which would be more striking were it not for the numerous petioles with which they are mixed. They have a yellowish color, which probably, in the freshly gathered flowers, is of a livelier tinge.

All who have employed the kousso as an anthelmintic speak of it in the highest terms. The effects following its administration are thirst, or dryness of fauces, warmth in pit of stomach, nausea, and sometimes vomiting. Sometimes it has acted as a gentle purgative. Dr. Chabert, after giving three doses of $\mathfrak{z}\text{i}$ each, "brought forth a tape worm almost entire, including the head." Dr. Wm. Wood, in the London Lancet, gives an account of a case of insanity which was completely relieved by the expulsion of a tape worm after the administration of kousso.

It is advisable to purchase it in the flower—not in state of powder—as it easily admits of adulteration, for which the powder of pomegranate root is used. It may be employed in doses of from 4 to 6 drachms, for adults; for children, according to age, from one-half to two drachms. The necessary doses are to be infused in lukewarm water, and to be given in the morning before any food is taken. "A little lemon juice is to be swallowed, and the infusion being stirred up, the whole is to be taken liquid and powder, at two or three draughts, at short intervals, and the taste removed by lemon juice. If no evacuation has taken place from the bowels, within four hours after its administration, a dose of castor oil should be taken." The facts in this abstract, we gather from Am. Jour. Pharmacy for 1850.

On the Distribution of Iodine.—M. Chatin has published a memoir in the proceedings of the French Academy, on the existence of iodine

in the atmosphere, in rain water, soils, &c., As M. Chatin employed the fixed alkalies and their carbonates as reagents in his investigations, Mr. McAdam of Edinburgh is inclined to refer the iodine discovered to these substances. Iodine has been found in pearl-ashes, and also in charcoal.

ART. LXX.--PERFUMERY AND THE ARTIFICIAL EXTRACTS OF FRUIT.

Dr. Playfair, in his lectures on the Results of the Great Exhibition, thus briefly notices a new class of perfumes and essences, which of late have attracted no little attention.

Much aid has been given by chemistry to the art of perfumery. It is true that soap and perfumery are rather rivals, the increase of the former diminishing the use of the latter. Costly perfumes, formerly as a mark to want of cleanliness, are less required now that soap has become a type of civilization. Perfumers, if they do not occupy whole streets with their shops, as they did in ancient Capua, show more science in attaining their perfumes than those of former times. The jury in the exhibition, or rather two distinguished Chemists of that jury, Dr. Hoffman and M. De la Rue, ascertained that some of the most delicate perfumes were made by chemical artifice, and not, as of old, by distilling them from flowers. The perfume of flowers often consists of oils and ethers, which the chemist can compound artificially in his laboratory. Commercial enterprise has availed itself of this fact, and sent to the exhibition in the form of essences, perfumes thus prepared. Singularly enough, they are generally derived from substances of intensely disgusting odor. A peculiarly fetid oil, termed "fusel oil," is formed in making brandy and whiskey. This fusel oil, distilled with sulphuric acid and acetate of potash, gives the oil of pears. The oil of apples is made from the same fusel oil, by distillation with sulphuric acid and bichromate of potash. The oil of pine apples is obtained from a product of the action of putrid cheese on sugar, or by making a soap with butter, and distilling it with alcohol and sulphuric acid, and is now largely employed in England in the preparation of the pine apple ale. Oil of grapes and oil of cognac, used to impart the flavor of French cognac to British Brandy, are little else than fusel oil. The artificial oil of bitter almonds, now so largely employed in perfuming soap, and for flavoring confectionary, is prepared of nitric acid on the fetid oils of gas tar. Many a fair forehead is damped with eau de millefleurs, without knowing that its essential ingredient is derived from the drainage of cow houses. The wintergreen oil, imported from New Jersey, being produced from a plant indigenous there, is artificially made from willows, and a body procured in the distillation of

wood. All these are direct modern appliances of science to an industrial purpose, and imply an acquaintance with the highest investigations of organic chemistry. Let us recollect that the oil of lemons, turpentine, oil of juniper, oil of roses, oil of copaiba, oil of rosemary, and many other oils, are identical in composition; and it is not difficult to conceive that perfumery may derive still further aid from chemistry.

Prof. Fehling, in the Wurtemberg Journal of Industry, gives the following abstract of what is at present generally known respecting the composition and production of some of the artificial extracts of fruit. He says:

Amongst the chemical preparations exposed at the London Exhibition, the artificial extracts of fruits were particularly deserving of attention. Although some of these extracts, as, for instance, butyric ether, have already found applications, their use has been hitherto only on a very limited scale. It is now, however, no longer to be doubted but that the majority of our artificial organic compositions will, ere long, be extensively applied, and their practical applications cannot but have a very stimulating effect on the study of organic chemistry, which will most probably lead to the discovery of technical applications for the new organic compositions, which the investigations of our modern chemists have furnished us with. Among the extracts of fruit exhibited by a London manufacturer, those which more particularly attracted attention, were pine apple oil, bergamot, pear oil, apple oil, grape oil, cognac oil, &c. Several of these oils have been analyzed by M. Faiszt, of Stuttgart. We give here a succinct description of some of these extracts, and of their manufacture.

Pine Apple Oil.—This product consists of a solution of 1 part of butyric acid ether in 8 or 10 parts of spirits of wine. For preparing butyric acid ether, pure butyric acid is required, and this is obtained most readily, and in the greatest purity, by the fermentation of sugar, or of St. John's bread, (*siliquea dulcis*.) For preparing butyric acid from sugar, M. Bentch takes a solution of 6 pounds of sugar and half an ounce of tartaric acid, in 26 pounds of water, which is left to stand for some days; at the same time, about a quarter of a pound of old decayed cheese is diffused in 8 pounds of sour milk, from which the cream has been removed; and after this has also stood for some days, it is mixed with the first solution, and the whole is kept from four to six weeks, at a temperature of about 24 deg. to 28 deg. Reaumer, water being added from time to time to replace that which is lost by evaporation. After the evolution of gas has entirely ceased, the liquid is dissolved with its own bulk of water, and finally 8 pounds of crystallized soda, dissolved in 12 pounds to 16 pounds of water, are added to it. The liquid is then filtered and evaporated till it weighs only 10 pounds, when a quantity of 5½ pounds of sulphuric acid, (*nordhausen* or fuming sulphuric acid,) diluted with 5½ pounds of water, is carefully mixed with it by small portions at a time. The butyric acid in the state of an oily substance, will now appear on the

surface of the liquid, from which it may be skimmed off; but as the remaining liquid still contains some butyric acid, it is submitted to distillation, by which means another portion of diluted butyric acid is obtained, which may be concentrated by means of melted chloride of calcium, or by saturating it with carbonate of soda, evaporating and decomposing by sulphuric acid. By this method $1\frac{3}{4}$ pounds of pure butyric acid are obtained from 6 pounds of sugar.

For preparing butyric acid ether, (butyrate of oxide ethyle,) from butyric acid, 1 pound of butyric acid is dissolved in 1 pound of rectified alcohol, (95 deg. Tralles,) and is mixed with one-half to one-fourth of an ounce of concentrated sulphuric acid; the compound is heated for some minutes, when the butyric acid ether will form a thin layer on the top. The whole is then mixed with half of its bulk of water, and the upper layer taken off; the remaining liquid being submitted to distillation, yields another quantity of butyric acid ether, which is mixed with that obtained in the first instance, and the whole well agitated with a very diluted solution of soda, in order to deprive it of all the acid; which operation should be repeated several times, if a very pure ether is desired to be obtained. Care should be taken to use but small quantities of the diluted soda solution at a time, so as not to lose too much ether, this latter being, in some measure, soluble in water. When large quantities are to be acted upon, the washing water, (*eau de lavage*,) is collected, mixed with an equal volume of spirits of wine, and distilled, by which means a solution of pure butyric acid ether in spirits of wine is obtained.

For preparing pine apple oil, 1 pound of butyric acid ether is dissolved in 8 pounds to 10 pounds of spirits of wine, which should have been previously deprived of its empyreumatic or fusel oil. Pure French spirits of wine will be found best suited for this purpose. According to the purpose for which the pine apple oil is to be applied, either rectified alcohol of 80 deg. to 90 deg. Tralles, or brandy of 40 deg. to 50 deg., should be used for dissolving the ether. 20 drops to 25 drops of such an extract will suffice for giving a strong pine apple odor to 1 pound of sugar solution, to which some acid, such as tartaric or citric acid, is generally added.

Bergamot Pear Oil.—What is called pear oil is an alcoholic solution of acetate of oxide of amyle, and acetate of oxide of ethyle, prepared from potato fusel oil, (the hydrate of oxide of amyle.) The potato fusel oil, or oil of potato spirits, (in German, *fuselöl*,) is the compound distilled over towards the end of the first distillation of spirits made from potatoes, and is an oily liquid of a very strong and nauseous odor. This oil, in the state in which it is obtained from large potato brandy distilleries, is never pure; but it may be purified by agitating it with a diluted soda solution, when the pure fusel oil collects as an oily layer on the top of the liquid; this oily substance is then submitted to distillation, and that part which distils over at 100 deg. to 112 deg. Reaumer, is collected, and forms the pure fusel oil.

The acetate of oxide of amyle may be obtained by taking 1 part

of fusel oil to $1\frac{1}{2}$ parts of dry acetate of soda, or 2 parts of dry acetate of potash, with 1 to $1\frac{1}{2}$ parts of sulphuric acid. The liquid having been kept for some time at a gentle heat, the acetate of oxide of amyle is separated by adding water, and proceeding as above explained. 15 parts of acetate of oxide of amyle are mixed with $1\frac{1}{2}$ parts of vinegar ether, (vinegar naphtha, acetate of oxide of ethyle,) and dissolved in 100 to 120 parts of spirits of wine, as in the case of pine apple extract; an acid, for instance, tartaric or citric, should be added to the sugar solution, on making use of the pear extract, which addition makes the flavor of the bergamot pear better distinguishable, and the taste acquires at the same time more of the refreshing qualities of fruit.

Apple Oil.—What is called apple oil, is a solution of valerianate of oxide of amyle in spirits of wine, which may be obtained as a secondary product when fusel oil is distilled with chromate of potash and sulphuric acid for the preparation of valerianic acid. The light solution which collects in the top of the distilled liquid contains valerianate of oxide of amyle, together with other liquids, such as aldehyde, which gives to the products a less agreeable taste and smell. It is, therefore, to be preferred for preparing pure valerianate of oxide of amyle.

For preparing valerianic acid, 1 part of fusel oil is mixed by small portions with 3 parts of sulphuric acid, and afterwards 2 parts of water are added. At the same time, a solution of $2\frac{1}{4}$ parts of bichromate of potash in $4\frac{1}{2}$ parts of water, is heated in a tubular retort; the first liquid is then permitted to flow very slowly into the liquid of the retort in such manner that the boiling continues, but very slowly. The liquid which is distilled over is saturated with carbonate of soda, and is evaporated either to dryness for obtaining valerianate of soda, or to the consistency of syrup, when sulphuric acid is added, (say 2 parts of concentrated acid diluted with the same quantity of water for every 3 parts of crystalline carbonate of soda.) The valerianic acid forms an oily layer on the upper part of the liquid; which latter will still yield some valerianic acid, on being submitted to distillation. For preparing valerianate of oxide of amyle, 1 part by weight of pure fusel oil (hydrate of oxide of amyle,) is mixed carefully with an equal quantity by weight of common English sulphuric acid; the resulting solution is added to $1\frac{1}{4}$ parts of oily valerianic acid, or to $1\frac{1}{2}$ parts of dry valerianate of soda, and is treated by a water bath, and then mixed with water, by which means the impure valerianate of the oxide of amyle will be separated; this is washed several times with water, afterwards with a solution of carbonate of soda, and finally again with water. In preparing this compound, it is essential that the mixture of sulphuric acid and fusel oil, with valerianic acid, should not be heated to a too high degree, or too long, as the product would thereby acquire an insufferably pungent smell, when required for use. 1 part of valerianate of oxide of amyle is dissolved in six or eight parts of spirits of wine, and acid is added in the same manner as has been before explained in the preparation of other extracts.

Artificial Oil of Bitter Almonds.—When Mitscherlich, in 1834, discovered nitro-benzole, he little thought, after twenty years, to find this body in an industrial exhibition. He certainly, at that time, pointed out the remarkable resemblance which the odor of nitro-benzole had to that of the oil of bitter almonds; but the only sources for obtaining benzole at that time, viz: the oil of compressed gas, and the distillation of benzoic acid, were much too expensive, and put an end to the idea of substituting the use of nitro-benzole for oil of bitter almonds. Mansfield, however, in 1849, showed by careful investigation, that benzole may be procured easily and in large quantities from oil of coal tar, and this discovery has not been lost sight of in the arts. Among the articles of French perfumery in the Great Exhibition, with the title of *artificial oil of bitter almonds*, and the fanciful name of *essence of Mirbane*, there were several specimens of oils, which consisted of more or less pure nitro-benzole. The apparatus used in the preparation of this substance, is that proposed by Mr. Mansfield. It consists of a large glass worm, the upper end of which branches into two tubes, which are provided with funnels. A stream of concentrated nitric acid flows slowly through one of these funnels, whilst the other is for the benzole, (which, for this purpose, need not be absolutely pure.) At the point at which the tubes of the funnels are united, the two bodies come in contact, the chemical compact formed becomes sufficiently cooled in passing through the worm, and only requires to be washed with water, and finally with some weak solution of carbonate of soda, to be ready for use. Although the nitro-benzole closely resembles oil of bitter almonds, in physical properties, it possesses, however, a somewhat different odor, readily recognized by a practiced person. However, it answers well for scenting soap, and would be extensively applicable for confectionary and for culinary purposes. For the latter purpose it has the special advantage over oil of bitter almonds, that it contains no prussic acid.

The application of organic chemistry to perfumery, is still in its infancy; and we may expect that a careful survey of those ethers and etherial compounds with which we are at present acquainted, and those which are daily being discovered, will lead to further results. The interesting caprylic ethers which M. Blouis has lately discovered, are remarkable for their extremely aromatic odor, (thus the acetate of caprylic oxide possesses an odor as strong as it is agreeable,) and promises, if they can be obtained in larger quantities, to yield materials for perfumery.—*Hoffman's letter to Leibig.*

The subject of the composition and artificial production of the various extracts of fruit and other similar perfumes and essences, strikingly illustrates the wonderful progress which has been made in organic chemistry within the last few years. A position has been taken by some chemists, who have carefully investigated this subject, which cannot, at present, be controverted, that the extracts or perfumes of the various fruits which can be artificially prepared in our laboratories from the basic organic radicals, are identical and the same with those which nature carefully elaborates in the apple, the

pear, the pine apple, banana and the like. The whole subject has been investigated more carefully, and has been applied to more practical purposes than the public is generally aware of. Take, for instance, the well known perfumes, known as "Lubin's Extracts," extract of geranium, millefleurs, new-mown hay, and many others; all of these are stated to be prepared from two or three of the common and cheap essential oils, and from the organic radicals. In addition to perfumes the most agreeable, odors of the most disgusting and nauseous character can also be produced by like means; as, for instance, the odor of the bed bug, squash bug, and many of the common weeds and plants. As an odor or perfume of a different character can be produced by the action of each different acid on the different oxides of the organic radicals, the number of bodies of this character capable of being produced, is almost innumerable, and may, possibly, embrace every known odor or perfume, which is now recognized in the animal, vegetable or mineral kingdoms.

The various artificial extracts of fruit have been applied to the flavoring of an agreeable species of confectionary known as the "acidulated fruit drops." These have been denounced as poisonous by some persons, on the ground that fusel oil is known to produce deleterious effects; and, as a natural consequence, the confectionary referred to has been discarded. There is, however, no foundation for such statements or belief, and if the confectionary flavored with these extracts has in any case produced injurious effects, it is undoubtedly to be referred to an injudicious consumption of it, and not to any inherent deleterious property.—*Am. Scientific Discovery*, 1853.

DEPARTMENT OF MEDICINE AND SURGERY.

ART. LXXI.--DIFFERENT MODES OF ARRESTING HEMORRHAGE FROM THE EXTRACTION OF TEETH.

Application of Metallic Plates, &c.—Dr. A. Saltonstall, of Columbus, Miss., reports a case (Am. Jour. Dental Science, Oct. 1852,) of hemorrhage from the extraction of a tooth, which, having resisted the usual means—astringents, escharotics and compression—was arrested by an artificial fixture acting both as compress and actual cautery. He “took a piece of pure silver plate, and cut it in shape to fit between the teeth and cover the lips of the orifice about the eighth of an inch on each side. This was bent to fit the parts, and heated to a white heat, and suddenly applied to the place, where it remained several days. When it was removed the coagulum came away with it. The orifice was examined, and a very delicate covering, resembling tissue paper, had formed over it.”

In the April No. of the same Journal, Dr. F. L. Crane, of Easton, Pa., gives a case which occurred with him in May, 1851. A compress, secured by cork, and a bandage tied over the head to keep the mouth shut, had been used with but temporary relief, and so imminent was the danger of the patient, that the attendant physician proposed taking up the carotid artery. As the last alternative, however, Dr. Crane took a “wax impression of the gum and remaining teeth, made a plaster cast, drying it over a spirit lamp; made metal casts, and struck up a silver plate, soldered on clasps to fasten on the remaining teeth, covered the plate with powdered alum—this last was perhaps of no use—had the mouth cleansed of coagulum, cotton, &c., and put the plate in its place; found the fit good, and the bleeding instantly ceased.” “Perhaps,” he adds, “one circumstance which rendered my fixture successful, was somewhat accidental. I found that one of my silver clasps was so broad that a lower tooth hit upon it when the mouth was closed, and pressed the plate tightly against the gum, rendering it impossible for the blood to escape. The plate was worn four days before removing it.”

Bi-chloride of zinc.—Dr. Levison of England, in an article published about a year ago, says, that in cases of excessive hemorrhage where the ordinary styptics cannot be depended upon, “we may arrest the dangerous hemorrhagic flow with certainty by destroying the vessels with the bi-chloride of zinc,” and gives cases where this agent, as a last resort, had been successful in his hands. In alveolar hemorrhage, pieces of cotton dipped into the bi-chloride were forced down to the bottom of the alveolar cavities. It was attended, however, with great pain.

It may be remarked that in some cases where success is ascribed to the last remedy employed, the result may have been owing to a natural stasis of blood from exhaustion of the patient; such hemorrhages sometimes continuing for hours, until after fainting, and then ceasing altogether, without any intervention. An interesting case of the kind was related to us a few years ago by a reliable lady who was herself the subject. The bleeding had continued with but occasional and partial intermissions for three days. On the night of the third it ceased, and she retired, but about midnight she was awakened by a renewed flow of blood. Exhausted by the loss of blood and sleep, she merely arranged a wash bowl upon a chair so as to receive the blood as it flowed from her mouth, and with her head supported by a pillow, she soon fell asleep. In this position she was found early the next morning, in a state of unconsciousness. The bleeding had effectually ceased.

It is fortunate that these cases rarely occur. We have had but few that were troublesome: besides the use of nitrate of silver, (which as a styptic we have found more reliable than any thing else that we have used,) and the application of pressure, we have in two or three instances resorted to a partial *torsion of the blood vessels* at the bottom of the alveolar cells. This depends upon the principle that the mouths of the vessels contract more readily when lacerated than when divided with a smooth cut, or broken short off, as may happen in extracting a tooth, and that mechanical irritation has a tendency to induce contraction. The *modus operandi* (as we received it while under pupilage, from our brother, Dr. J. S. Wood) consists in passing a stylet or an ordinary excavator of the proper shape, to the bottom of the socket, until a twinge of pain is felt, and then giving the instrument a sudden turn, so as to twist or lacerate the artery—its situation being indicated by the impression made upon the nerve which it accompanies.

We know of but one instance in this vicinity, of death having occur-

red in consequence of the kind of hemorrhage under notice. This was in Russellville, Ky., about two years ago. The patient's tooth was broken in extracting it, leaving a portion of the fang which could not be gotten out. Pressure, as well as styptics, &c., was tried, but without arresting the hemorrhage, the man dying, according to the recollection of our informant, in about fifteen hours after the operation.—We would like very much to be favored with a report of the case in full.

In case a tooth is broken and the bleeding proceeds from the pulp cavity or nerve canal, the obvious means of arresting it would be to plug the orifice with a metallic or wood stopping. A hickory peg or sliver would perhaps be as good as anything. If the orifice be too small to receive a stopping it should be enlarged by means of a drill.

Pressure applied directly to the bleeding vessels and retained in its place is reliable in such cases of hemorrhage; but there is sometimes considerable difficulty experienced in its application. A ready and effectual means is to roll up pellets of cotton firmly in the fingers, of a size to suit the alveolar cells, and introduce them with considerable force, notwithstanding it be attended with considerable pain, as it always is, we believe, when the hemorrhage has continued for some time. They may be wet with some styptic solution, or coated with powdered lunar caustic. After the first pellet has been introduced, we usually fill the remainder of the cavity with one of a larger size, and if it be a molar tooth with two or three bi-furcations, cover the whole with a third, sufficiently large for the purpose but no larger, crowding the edges under the margins of the gums, which, in ordinary conditions, where the blood possesses its due amount of fibrin, and is of a plastic character, will be found to adhere to the cotton with sufficient tenacity to retain it in its place. It will be safest to let this stopping remain until loosened by the suppurative process. If not thrown off, however, or removed in the course of a few days, the pellets thus introduced are apt to prove the source of great suffering in the sockets, bespeaking the inflammatory action preparatory to suppuration; but when this occurs we think they may be removed at once, regarding it as evidence that active reparation has commenced.

The "waxed cones" recommended by Dr. B. B. Brown, which are made by cutting a piece of linen previously coated with melted beeswax, into tapering strips, and rolling these in a form to suit the sockets to which they are to be applied, may be used to great advantage in many cases.

B. W.

ART. LXXII.—CORRESPONDENCE.—PROFESSIONAL EDUCATION, &C.

We give below the first part of a letter from the pen of George Mendenhall, M. D., lately one of the medical Professors of the Ohio College of Dental Surgery, now of the Miami Medical College. The doctor's letter was not intended for publication, but his just and excellent remarks upon the relationship of Medicine and Dental Surgery are of so general interest, that we must claim indulgence for presenting them to our readers. If such views were generally inculcated at our colleges of dentistry, it should, of itself, commend these institutions to favor. We do not apprehend, with some of the dental professors of our colleges, any danger of "degrading dental surgery," either by incorporating a chair devoted to it in medical schools, or by including a preliminary course in the latter, as a part of a collegiate dental education; and we have been pained to see that any should, directly or indirectly, dissuade young men from seeking the advantages or well earned honors of a medical in addition to a dental course. If the views of such men as Professor Mendenhall, were had and generally diffused, it could not fail to have a salutary effect.

CINCINNATI, May 16, 1853.

B. WOOD, M. D.:

Dear Sir:—Some person, a few days since, sent me the second number of the Southern Journal of the Medical and Physical Sciences, with which I am highly pleased. In the department of Dental Surgery, I notice an article on "THE CONDITION OF DENTAL SURGERY, and its Relations to MEDICINE," with which I pretty fully coincide. The union ought to be more intimate for the purpose of mutual benefit. The past, (and in some measure the present) relation has depended upon the ignorance of both dentists and medical practitioners. Every medical man should understand the principles of dentistry, or, in other words, he should take a thorough view of physiology and pathology from the point occupied by the dentist. The dentist should, also, be thoroughly indoctrinated into the principles of medicine, including physiology, pathology and therapeutics, prior to studying intimately the connection of the specialty of dentistry with them. This specialty, or branch of medicine, consists in nothing but the *extension* of medical knowledge in a particular direction. It and all other extensions ought *always* to hold a close relation with the parent trunk, receiving nutriment through the body from a common root, and, in turn, sending back a vivifying respiratory influence from the leaf-like expansions of the branch, and thus both being materially benefited.

The best way to accomplish and render closer this union, is a mat-

ter of some importance, but respecting which there may be a difference of opinion ; and it does not seem to me to be necessary that ill feeling should be excited in its discussion. Any plan or plans that tend to stimulate medical practitioners to study dentistry as a part of a general medical education, and also excites in the mind of the dentist the absolute necessity of general medical knowledge of a thorough character, will be productive of advantages ; and it appears to me that while dental colleges are absolutely necessary, that, at the same time, a dental chair, in our regular medical colleges, is loudly called for by the wants of the medical practitioner.

Having formerly held a connection with "The Ohio College of Dental Surgery," I can say that, a constant effort has been made by the "medical men," and I think also by the teachers of the specialty, to enforce the view of close intimacy and common paternity of dentistry and medicine. This view should always be prominent, until both are enlightened and made to admit that the moment they are separated both receive an important injury. Consultations between the medical and dental attendants of families, should be encouraged, while petty jealousies should never be permitted to intrude.

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[Professor Mendenhall subsequently writes:]

In reference to the proper plan for the education of dentists, I am inclined to the plan of teaching dentistry in our medical schools, while, at the same time, I think the dental colleges should be sustained, for the purpose of a more thorough dental course, to meet the wants of those who intend to confine themselves to that specialty. I think it would be advisable, in *all* cases, that one course in a medical college should be taken, and if in the power of all to graduate, it would be still better.

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ART. LXXIII.—DENTAL SUMMARY AND INTELLIGENCE.

Mortality of Children, as the result of various sources of Irritation, from the First Dentition.—Dr. J. L. Levison, of Brighton, England, in a communication upon this subject, in the April No. of the American Journal Dental Science, after detailing several cases of irritation, from teething, involving the nervous, vascular and mucous systems, says :

"Thus it will be evident, that at the period of teething, the brain and spinal nerves may be sympathetically implicated, and by reflex nervous action—the circulatory, the secretory, and the assimilating organs, are often involved ; and sometimes there is an abnormal state of the nervous senses. That from the direct effect on the mucous surfaces, the abdominal organs suffer. Whilst the glands, the neck, the throat and mouth, generally may also become seriously affected.

As a proof that the external senses may be implicated, we may refer to *strabismus* ; and the deafness (which leaves a child mute,) arises, in a majority of cases, during dentition—the inflammatory condition of the mouth, affecting the eustachian tube, and, in consequence, the child is deprived of the power of hearing articulated sounds, and never attempting to use his own vocal organs, hence he becomes a dumb mute. Lastly, we may mention that many *dermoid* affections are referable to the same cause. The law seemingly is, that the weakest organs are likely to be first implicated ; and that those, therefore, which we inherit from birth, with an hereditary tendency to diseased action, are thus certain of suffering the soonest from any violent disturbing influence.”

Causes of Decay of the Teeth.—In reply to the inquiries of the late Dr. Drake, concerning the predisposing and proximate causes of decay of the deciduous and permanent teeth, &c., propounded to the Mississippi Valley Association of Dental Surgeons, Dr. James Taylor, chairman of the society’s committee upon the subject, has published a very interesting report in the Dental Register, (January and April Nos.)

He ascribes the predisposition of the teeth to decay to defective and imperfect organization in point of structure, and this, (in case of the deciduous teeth especially,) he refers, in a great degree, to the constitution of the parents, and the health of the mother during gestation. Changes in the chemical character of the blood, the result of diet or disease, would exert an important influence upon the formation and structure of the teeth, (chiefly the first set,) of the child *in utero* ; and the quality of her milk, affected by like causes, would have a similar influence upon the second set, during the period of lactation, through the circulation of the infant. In connection with these points, references are made to the chemical constituents of the blood and milk in health and disease, &c., deficiency in the solid elements of these fluids appearing to account for original defectiveness in the structure of the dental organs. Disorders peculiar to the period of lactation, and diseases of a later date, are also referred to as affecting the teeth injuriously.

The direct cause of decay is attributed to the chemical action of vitiated secretions of the mouth, (of an acid nature,)—the result of constitutional or local disease—the collection of decomposable foreign matter about the teeth, and to acidulous articles of diet, beverages, &c., the acid particles combining with and abstracting the earthy constituents of the teeth, and thus inducing disorganization of their structure.

Dr. Allen's Improvement.—Although we did not get time to examine into the process of Dr. Allen's improved method of mounting teeth with continuous gums, as fully as we intended during his brief stay in this city, yet so far as we saw, we were very much pleased with it. Teeth thus mounted make an exceedingly beautiful appearance, to say the least, and there is no doubt that, in many cases, their 'virtues' in the mouth would be equal to their looks out of it. Indeed, we regard this improvement as calculated to supply an important desideratum in the dental art, and destined, when perfected, to supersede the ordinary methods. Judging, however, from the amount of cement used upon the specimens we saw, (and which would seem to be necessary in order to prevent fracture or cracking from the strain upon the plate in mastication, and also to afford sufficient support to the teeth,) we should think the method would not be applicable for upper dentures in the majority of cases—but for lower ones this would be no objection, and very often an advantage. But as the gums of the lower jaw are so intolerant to unequal pressure, and plates fitted upon this plan can admit of no subsequent alteration, there would seem to be danger of trouble; and especially in case of absorption or modification of the alveolar ridge. We hope that time may prove favorably for the durability and advantages of the new method, and that the most sanguine expectations in regard to it may be fully realized.

Voltaic Electricity in the Mouth.—While Dr. Allen was in this city, we had the pleasure to be present at a meeting of the profession, invited to hear an exposition of the principles and process of his new improvement. During the course of his remarks, the doctor, by way of illustrating the galvanic action resulting from different metals in the same mouth, alluded to an interesting circumstance as communicated to him by the dentist in whose practice it occurred. In supplying a temporary set of teeth upon silver plate, two teeth were used having gold backings fitted to them. Some months after the teeth were inserted, it was found that the plate and the linings of the other teeth were perfectly coated with gold, a galvanic and electrotype process having gone on in the mouth, the gold backings alluded to supplying the material, as was inferred, which, after solution by the secretions of the mouth, was thus deposited upon the other parts of the plate.

This reminds us of a circumstance, somewhat different, however, which occurred to our own observation, a few years ago. A dyspep-

tie and debilitated patient, in whose case we had used nitrate of silver for a fungus sprouting of the gums subsequent to extracting some teeth, took it upon himself to repeat the remedy quite freely, without taking any precaution to protect his teeth from the solution. Upon examining his mouth afterwards, we found a lower molar, containing a large tin plug, completely gilded, the metallic coating adhering with tenacity to the enamel of the tooth, and shining like burnished silver. We had opportunity of seeing this effect subsequently verified in the mouth of this patient. What particularly struck our attention, was the circumstance of the metallic deposit thus attaching itself to a non-metallic and non-conducting surface—being determined to this by the tin plug underneath.

Examinations of the Teeth.—Under this head the *Dental Recorder* contains some just and appropriate cautions to members of our profession, and illustrates the evils, to both dentist and patient, resulting from hasty and careless examinations. We quote the closing remarks :

“Examinations of the teeth should be made at least semi-annually, from the cutting of the first molar to the age of twenty-five, or as long as the teeth show signs of active decay ; and time should be taken to make them thorough and methodical, beginning with one side of the lower jaw, proceeding from tooth to tooth, around the mouth, and returning by the upper. When it is completed, the dentist should be sure, from positive knowledge, before he pronounces the teeth in good condition. So far as we know, it is not customary to charge a fee for examination of the teeth, unless it is found necessary to perform some operation. How far this may influence the dentist and induce careless and hasty examinations, we will not say ; but in our opinion there is no good reason why we should not be remunerated for time and skill spent in this way, and we think if more time and care were generally bestowed upon them, that no liberal person would expect to receive them gratuitously.”

Dentistry in Southern India.—A Missionary, writing from Sivagunga, Southern India, to the proprietors of the *Dental News Letter*, acknowledging the receipt of “some excellent tooth-drawing instruments,” says :

“Within the first ten or twelve days after their arrival, I extracted eight teeth, some of them large, requiring the large forceps. Many thanks to you for the pamphlet. I have derived many useful hints from it. You must know that I am a perfect tyro in the business, having been pressed into service by sheer necessity. Multitudes of the people, coming from a great distance, in some instances, seek from us relief in all surgical and dental cases, which their own

physicians never pretend to afford. As a people, they are quite careful of their teeth. All classes clean them before eating, rubbing them with a clean twig, broken fresh from the tree. They are superstitiously exact in this matter, never, as they say, defiling their mouths by putting any thing a second time into them. But, from some cause, their teeth ulcerate at the roots, which produces a constant discharge through the cheek. On extracting, the ulcers heal up. I have relieved a great many such cases. Such teeth are not difficult to draw, often becoming quite loose."


Use of Anæsthetic Agents in Ancient China.—Stanislaus Julian has found, in examining the Chinese books in the National Library at Paris, the proof that the Chinese have been long acquainted with the use of anæsthetic agents during surgical operations. The extract which he gives is from a book published about the commencement of the sixteenth century, in fifty volumes quarto, and entitled "Kow-Kin-i-tong," "General Account of Ancient and Modern Medicine," and refers to the practice of a celebrated physician, Ho-a-tho, who flourished between the years 220 and 230 of our era. It states, when about to perform certain painful operations, "he gave the patient a preparation of hemp," (hachich,) and that at the end of a few moments, "he became as insensible as if he had been drunk or deprived of life." After a certain number of days the patient was cured, without having experienced the slightest pain during the operation. In a subsequent notice he also adds, that the same physician used the hydropathic system as a cure for certain diseases, among others, chronic rheumatism.—*Edinburgh Philosophical Journal*.

Letheon.—Dr. W. T. G. Morton is still pressing his claim before Congress, for remuneration for the claimed discovery of the anæsthetic properties of sulphuric ether. He is backed in his claim by the names of one hundred and thirty of the surgeons and physicians of the Massachusetts General Hospital, and members of the Massachusetts Medical Society.—*Dental News Letter*.

At the last meeting of the Medical Society of the State of Georgia, Dr. C. W. Long presented his claims to priority of discovery of the anæsthetic properties of sulphuric ether to the notice of the society, and it was unanimously resolved, as the opinion of the society that he was the first person who used this agent anæsthetically in surgical operations.

MISCELLANEOUS NOTICES, &C.

An Explanation.—In justice to Messrs. Rosengarten & Denis, an analysis of whose quinine was given in our report before the Medical Society of Tennessee, we state that the article analyzed *was not purchased direct from them.* We meant to prefer no charge against the manufacturers, and therefore stated that the sample was taken from a jar *labelled* Rosengarten & Denis. We do not pretend to say how far that article traveled in its rounds, through whose hands it passed, or where it imbibed its impurities. We are convinced that Messrs. R. & D. can and do make pure chemicals. R. O. CURREY.

 A highly interesting communication upon the subject of Typhoid Fever, has just come to hand from our confrere of Kentucky. It will appear in our next.

In a conversation a few days since with Dr. S. O. Scruggs, of Natchitoches parish, Louisiana, we learn that cholera is still prevailing on the plantations along the Red River, though in a milder and more manageable form than during the epidemic visitation of 1849 and 1850. Recently, a patient in the collapsed stage, was put off a steamboat near the mouth of Red River, supposed to be moribund; the man begged for cold water, but in place of the water, a *bucket* of strong coffee and a cup, were sent to him from the boat. Being deprived of water, he drank freely of the coffee, and speedily recovered. Dr. Scruggs, acting upon the suggestion, has employed a strong decoction of coffee and pulverized opium, in a number of cases since, with the happiest results, and recommends the preparation in the highest terms.

Dr. Scruggs speaks very favorably of the tincture of the veratrum viride, in the treatment of pneumonia. In two severe cases, the pulse was rapidly reduced below the normal standard, to such a degree in one case, that he was alarmed with the apprehension, that the patient might sink from syncope or convulsions. The prompt administration of diffusible stimulants however, soon restored the pulse; both the patients had a most favorable convalescence. Dr. S. regards the employment of the tincture very hazardous in typhoid fever in complication with organic inflammation, especially when there is a tendency to prostration.

Would not the tincture be valuable in the treatment of acute mania? J. W. K.

Quixotism.—At the late meeting of the State Medical Society, convened at Nashville, a resolution was introduced, earnestly solici-

ting the physicians of Tennessee to organize themselves into county societies. The author of the resolution was prompted by a strong conviction of the importance of sustaining the State Society, and a belief that its future efficiency and character would depend, in a great measure, upon the support and cooperation of county auxiliary societies. He did not contemplate, however, the organization of a society whose chief aim was to wage war upon patent medicines, believing that the prime object of medical societies is to cultivate a more friendly and generous professional intercourse, and to encourage medical research, the better to qualify its members for the practical duties of professional life. The career of the illustrious hero of La Mancha, had satisfied us that wine skins and wind mills were not to be exterminated by the lance, and we have no expectation that patent medicines in general, and Fahnestock's Vermifuge in particular, are to be driven from Davidson county, and from Nashville especially, by the Bulls and Anathemas of a medical society. No more effectual plan can be pursued by medical men to exalt and dignify quackery, and popularize the legion of nostrums, than the fierce assaults which are being made by medical societies and associations. Much as we disapprove quackery, we are not disposed to magnify it into a respectable opponent, by odious comparisons with honorable medicine, especially when it is so much easier to abuse patent medicines, than to expel quackery of a more hideous mien, from the ranks of the medical profession. The dignity of honorable medicine is not to be advanced by tithing mint, anise and cummin, to the neglect of the weightier matters of the law; straining at gnats and swallowing camels—denouncing every species of quackery, unless it has been manufactured *secundum artem*, and legalized *secundum scholium*.

We have despaired of seeing an efficient medical society organized in Nashville, for the present, at least; and in the meantime, we only have the consolation to know that we have done what we could.

J. W. K.

Dr. H. A. Ramsay's Letter to Dr. James Bryan, on the Southern Negro, &c.—From the Philadelphia Medical and Surgical Journal, March 1, 1853. Not having seen the author's essay, and the review of it by Dr. B., we are scarcely prepared to appreciate the merit and bearing of the present article, and are left to conjecture the positions assumed by the two gentlemen in reference to the question at issue between them. Certainly Dr. Bryan cannot be an advocate for amalgamation of the white and black races, upon *physiological* principles; we should think he had seen the fruits of amalgamation on a sufficiently large scale, to convince him of the *unprincipled* physiology of the thing. There is a growing proclivity in the philosophy of the present age to apotheosize science, and exalt its suggestions above the plain teachings of Holy Writ; it is becoming an axiom with the school of philosophy, to measure the doctrines of the Bible by the rule of the natural sciences, and to degrade revelation to a dependence upon the presumed truths of science. An Apostle reasoning

on this point, said, "Let God be true, and every man a liar;" but philosophy says, let science be true, and the scriptures false, unless they can be made to harmonize in their teachings.

We cannot agree with Dr. Ramsay, that *anatomical science* is the legitimate plan for the correct *adjudication* of this question, or that the establishment of chairs in the schools for its elucidation upon anatomical grounds, would settle this "*negro concern*." If men will not obey the precepts of Christ and his Apostles, they will hardly respect the demonstrations of anatomical researches. There is a "higher law" than either science or revelation with multitudes in our country, who profess to be wise above what is written, and would usurp the judicial prerogatives of the Creator Himself. We have no hope or desire, that this question can or will be settled by the light of philosophy or science; confident as we are, that He who worketh all things after the counsel of His own will, will make even the wrath of fools and fanatics to praise Him, and the remainder of wrath will he restrain.

J. W. K.

Exposition of Motorpathy.—A new system of curing Diseases by-statuminating, vitalizing motion; by H. HALSTED, M. D., of Rochester, New York.

This new and very elegantly printed work, contains one hundred and seventy-one pages; twenty-five of which are occupied with remarks upon "Motion," its existence in minerals, vegetables and animals. "Man, a complex being—*substantia prima*—*Vita-motive* power—the Brain—The two recuperative principles—Diseases cured by loss of motion—Its manifestation in a paralyzed limb—No one remedy or course of treatment can cure all diseases—*MOTORPATHY*— * * * * *

WOMAN,—Her physical condition in a state of nature, its contrast under civilization—the necessity of reform in her habits, &c." These several departments are, in the main, treated by Dr. Halsted, in a style peculiarly philosophic and captivating. He expresses, and very prettily, too, many important truths, with which we could wish the masses were more thoroughly acquainted. His article on Woman, her physical condition in a state of nature, contrasted with her condition under civilization, is truthful, poetic, and in fact, eminently felicitous; but his report of *her* diseases, and *his* treatment, is arrant, unmitigated and inexcusable tomfoolery.

He undoubtedly thinks, as he writes, *in English*. Such, too, as a school-boy may understand—for its simplicity constitutes, in a great degree, the beauty of his style. And yet he withholds his treatment from medical men, because, as he intimates, of the improbability of their comprehending it!! The *modus operandi* of this "peculiar process" of statumination and vitalization, to use the author's own language, "cannot be given with sufficient clearness, to enable a physician to enter into a judicious practice of it, short of a course of personal instruction, *therefore*, its explanation will not be attempted," and, *therefore*, it is our private opinion—thrown in here by way of parenthesis—that

H. Halsted, M. D., of Halsted Hall, is well deserving to wear the crown of his "peculiar" craft, upon which should be inscribed, *excelsior!*

W. P. J.

Report on Epidemics of Tennessee and Kentucky, by W. L. SUTTON, M. D., THEO. S. BELL, M. D. and W. K. BOWLING, M. D., has been received, and we are requested by the Chairman "to say something to stir up such of our readers as live in the two states, to a working faith in the advantage of the enterprise." We regret to see that Tennessee Physicians have done so little in furnishing the information sought. There is really nothing which contributes more essentially to the promotion of the interests of Medicine, than these monographs; and to their thorough preparation it is indispensable to have the co-operation of competent men. We have the men, and if there is as little sickness in the different sections of the State as in *this vicinity*, they have the leisure.

W. P. J.

The Principles of Chemistry, illustrated by simple experiments, by Dr. Julius A. Stockhardt. Translated from the German by C. H. Pierce, M. D.

First Principles of Chemistry, for the use of Colleges and Schools, by Benjamin Silliman, Jr., M. A., M. D., 25th edition, re-written and enlarged.

Messrs. W. T. Berry & Co., and Messrs. Toon & Rutland, of this city, have each placed upon our table the text books which form the caption of this notice, and an examination of the one, and a thorough acquaintance with the other, having used it when it first made its appearance as a class book, prompts us to commend them both cordially and heartily to the favorable notice of teachers and students. One of the most difficult tasks that a writer of any scientific text book has to perform, is to adapt it to the object for which it is intended. A text book for schools should not presume too much upon the previous knowledge of the pupil, every principle therefore should be clearly established, and every illustration appropriately employed. The writers of text books on such subjects exert, moreover, a great influence upon the dissemination of the principles of science among the people. If, as is frequently done, the book is filled with drawings of costly apparatus, and experiments requiring rare and unattainable chemicals, it will have a tendency to discourage the educator as well as student, being unfit for use in our elementary schools. But in the books which form the subject of this notice, no such objection is found. They are truly adapted "for use in schools and colleges," being peculiarly felicitous in this respect.

Chemistry has become so important in the arts of life, that no system of instruction is complete, unless it forms a part thereof. No longer immured within the laboratories of our Universities, this science is seen promoting every department of the arts of life. Guiding the farmer in the production of the raw material, as well as the manufacturer in its conversion into the ten-thousand varied forms for the

purposes of life. The apothecary claims its aid, in compounding and preparing his medicines, and the physician, in the cure of the diseases that daily come under his charge. Its importance has, therefore, properly interwoven it with the very elements of education. Pupils, as well as instructors, have become experimenters. By one of our authors, *experiments* are called the spelling part of the scientific course, and he has, therefore, filled his pages with suitable experiments for impressing the minds of his pupils. We will resume this subject of scientific text books in a future number.

R. O. C.

The following works have been received :

Materia Medica, or Pharmacology and Therapeutics. By WILLIAM TULLY, M. D., Vol. 1, Nos. 1—6. [From the author.]

Treatment of Stricture of the Urethra, by rapid and free Dilatation. Read before the Medical Society of the State of Georgia, April 14, 1853. By PAUL F. EVE, M. D., etc. [From the author.]

A Valedictory Address to the Graduates of the Memphis Medical College. By H. V. WOOTEN, M. D., etc., 1853. [From the author.]

Essay on the Sudden Coma of Typhus and Typhoid Fevers, etc. By LEWIS SMITH, M. D., New York, 1853. [From the author.]

A Discourse, By J. R. KENDRICK, occasioned by the death of M. T. MENDENHALL, M. D., of Charleston, S. C., 1852.

Use of Chloroform in Midwifery. By GEO. N. BURWELL, M. D., of Buffalo Hospital, 1853. [From the author.]

A Review Report of a Committee of the American Medical Association, on the Permanent Cure of Reducible Hernia, or Rupture. By GEORGE HEATON, M. D., etc. [From the author.]

Review of Dr. Trenor's Remarks on the Professional Education of Dentists. By AMOS WESTCOTT, M. D., of Syracuse, N. Y., 1852.

Lectures on the Science of Life Insurance. By MOSES L. KNAPP, M. D. Philadelphia, E. S. Jones. Cincinnati, H. W. Derby & Co 1853.

Tenth Annual Report of the Managers of the State Lunatic Asylum of the State of New York, 1853.

Typhoid Fever of the South. By H. A. Ramsay, M. D., 1853. [From the author.]

Annual of Scientific Discovery. By DAVID A. WELLS, A. M. Boston, Gould & Lincoln, 1853. (From the Publishers, through Messrs Toon & Rutland, Booksellers, Nashville, Tenn.)

Respiration Subservient to Nutrition. A Thesis presented to the Medical Faculty of Harvard University, March 1850. By E. LEIGH, M. D., 1853. [From the author.]

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ART. LXXIV.—TYPHOID FEVER

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Although much has been written and said upon Typhoid Fever, its etiology and treatment, and although many interesting facts, and much valuable information have been deduced by the earnest and ardent investigations of such men as Louis, of France, and Bartlett and Flint, of our own country, yet the intractable character of the malady, its frequent recurrence endemically, epidemically and sporadically, in every section of our widely extended country, where, but a few years ago, it was unknown and almost unheard of—its mortality, and the unsettled state of medical opinion upon many obscure, but interesting points of its history and treatment, will, I trust, be a sufficient apology for this obtrusion upon public notice.

In looking over the cumbrous but crude mass of matter that has been written and published in the last few years, upon this subject, one cannot fail to be struck with the inconceivable contrariety of opinion which has been held as to the causes, symptoms and treatment of this fever, and the no less astonishing contrariety of results which has obtained from modes of practice as diverse as the antipodes. The lancet, emetics and mercury, occupy one extreme of the rule of treatment, while “masterly inactivity” stands at the other extreme. Some contend for its contagious and essentially specific character; others that it is a disease *sui generis*, unlike all others in the laws of

inception, manifestation and resolution ; while others, again, find its cause in a hypothetical modification of that antagonistic agent, malaria, and are not slow to trace a family likeness with Bilious, Remittent and Congestive Fevers. But alas for these theorists ! “What is sauce for the goose, is not sauce for the gander.” Mercury and quinine, so omnipotent in the treatment of all the so-called forms of malarial disease, are, to say the least, impotent in the treatment of Typhoid Fever.

In the midst of this chaos of opinion and practice, it is well and impartially observed facts alone, which can bring order out of confusion, and establish a correct diagnosis and a rational treatment. It is in the hope of adding something to the mass already accumulated, that I offer the following cases :

Mr. C., age 37, an opulent farmer, residing in an adjoining county, was attacked about three weeks prior to my first visit, (which was March 7,) with slight fever, head-ache and loss of appetite. The symptoms were of so mild a type, that they excited no uneasiness. The attending physician said there was not much the matter, and gave calomel, blue mass, etc.

March 7.—Saw Mr. C. for the first time, in consultation with Dr. S——. Pulse 100, vibratory and compressible ; tongue dry, fissured and dark brown ; thirst urgent ; skin dry, though not hot ; abdomen tumid, no tenderness ; alvine evacuations frequent, liquid, dark and offensive. Complained of no pain, was cheerful, and intellect unclouded.

I at once pronounced it a case of Typhoid Fever, to which opinion my confrere dissented. Of course our views of treatment differed as widely as our diagnosis. We however agreed to give a few grains of pulv. Doveri and hydrarg. cum. creta, every six hours, until the bowels were restrained and the secretions improved—but under a misapprehension, my friend gave calomel and creta prep.

March 9.—Summoned in haste ; found patient greatly exhausted by a profuse hemorrhage from the bowels ; pulse feeble ; skin cool ; countenance dusky ; mental faculties stunned ; tendency to coma. The attending physician had become offended, and retired from the case. I had, consequently, to rely upon my own resources. Gave sach. sat., grs. 5, every two hours ; bolus of carb. ammonia, camphor, aa., grs. 10, every three hours ; sinapisms to extremities, frictions with brandy and pepper, and blister over abdomen.

March 10.—Hemorrhage promptly arrested, and sach. sat. discontinued after the third dose ; pulse fuller and stronger, though lows

and hesitating ; tongue dry and black ; sordes about teeth ; deglutition difficult ; stupor increasing ; talks in his sleep, though rational when aroused. Ordered sago diet, blister *ad nuchæ* ; warmth to the extremities ; continued stimulant pills.

March 11.—Bowels not moved since 9th ; distended. Condition in other respects as yesterday. Ordered enema, but without effect ; gave castor oil, spts. turpentine, each teaspoonful, every three hours. The third dose brought away large, dark, offensive stool ; had the appearance of dissolved blood. Had two other actions in the course of the night.

March 12.—Pulse more rapid and feeble ; breathes heavily ; hic-cough ; subsultus. Ordered wine whey freely ; carb. ammonia, 20 grains, every four hours ; chicken water ; dry warmth and friction to extremities—lingered until the 19th, without material change—when death closed the scene.

CASE 2.—Mrs. C., wife of Mr. C., aged 27—attacked March 1, two weeks after her husband was attacked. It was pronounced to be a case of chills, and treated with calomel, quinine, etc., which failing to relieve her, were repeated from day to day, in augmented doses. When first seen by me, (March 7,) she complained of distressing heat in stomach and bowels, tenderness in the right iliac region, nausea and vomiting, intense thirst, and sleepless vigilance ; pulse quick and variable ; face alternately flushed and palid ; complained of difficulty of micturition, and a heavy, dull, aching in back and pelvic region. Bowels had been freely moved by calomel and cathartics ; the secretions from the liver, I was assured, were unexceptionable. I advised cut cups and fomentations to the abdomen, iced mucilages, Dover's powder, and a mild febrifuge. The suggestions did not meet the views of her physician, a fact of which I was not advised until my next visit, March 9, when I found, to my surprise, he had continued the calomel and quinine even more boldly than before—having given her a simple dose of calomel the night previous. Found her suffering extremely ; pulse so rapid as to baffle attempt to count it ; constant sighing, tossing and wretching ; skin hot ; breast covered with the rose-colored spots ; abdomen tympanetic and tender on pressure ; tongue red and dry ; had not passed water since yesterday. Introduced the catheter and drew off nearly a quart of highly colored urine ; ordered cold affusions, cold elm water injections, and ice *ad libitum* ; morphia, $\frac{1}{2}$ grain every two hours. 8 P. M. Bowels commenced moving, passing off several large, consistent, tar-like stools, but without relief to the symptoms. She passed a restless and

sleepless night, although the anodyne was increased to a full dose.

March 10.—Continued more anxious ; great mental distress ; extremities cool. Applied blisters to extremities and abdomen.—10 A. M. Went to stool, and literally filled the vessel with bright, florid blood ; another soon followed, and she expired half after eleven, one hour and a half after the hemorrhage supervened.

CASE 3.—A servant girl, aged 19—mulatto. Saw her March 11 ; had been complaining for three days previous of pains in head, back and limbs, and a feeling of weakness. She is now listless and drowsy ; skin dry and husky ; pulse and temperature almost natural ; bowels rather loose ; two or three motions per day, without pain ; thin, but otherwise of a healthy appearance.—R. ex. rhatany, pulv. Doveris, aa., grs. 2 ; hydrarg. cum. creta, grs. 4, every four hours ; had the surface scrubbed well with salt water tepid ; had her put to bed and enjoined quiet, and rice water diet. It is needless to pursue this case in detail—suffice it to say, that on the twelfth day the lenticular spots made their appearance ; the pulse and temperature nearly natural in the morning, and suffering slight exaltation in the afternoon. The tendency to diarrhœa continued throughout, but was easily restrained by a few grains of rhatany and Dover's powder at night—the hydrarg. cum. creta was omitted. After the second day, cool drinks and mucilages were freely allowed. The case thus slowly and almost imperceptibly wore on to convalescence in the third week.

CASE 4.—A black child, age $2\frac{1}{2}$ years, was found in the yard, (March 12,) in a senseless condition ; breathing heavy ; pulse rapid ; skin hot ; impossible to arouse it to consciousness ; no control over the voluntary muscles. It remained passively in any position it was placed in. Having been quite well in the morning, it did not occur to me that it could be Typhoid Fever. The invasion was so startling and sudden, I rather supposed it concussion of the brain from a fall, or other injury ; but nothing of the kind had occurred. I had it placed in a warm bath and bled from the arm, while cold was applied to the head.

March 13.—Symptoms unchanged ; pulse 120, slightly resisting ; bowels not moved since yesterday ; urine passes involuntarily ; skin hot. Ordered cut cups to the temples ; ice water to the head ; cool sponging to the whole surface ; stimulating friction to the spine ; stimulating injection, which moved the bowels slightly. Injection to be repeated every two hours, until bowels were freely evacuated.

March 14.—Diarrhœa had supervened in the night ; actions frequent thin and yellow ; could swallow with difficulty ; restless and

moaning. The arms were in restless motion, but lower extremities still passive ; pulse 130, and feeble ; skin hot over the abdomen, chest and head, but extremities cool. Ordered blue powder, grs. 3, every four hours, until the secretions were improved ; chalk mixture to restrain the bowels ; mustard bath to the extremities, followed by mild sinapisms ; blister ad nuchæ ; continued frictions to the spine.

March 15.—Much improved ; quite rational ; can move its limbs freely ; takes nourishment and drinks without difficulty ; pulse 100, soft ; temperature equiable : bowels distended and tender on firm pressure, moved well since last visit ; tongue red at edges, with a dry, brown coat in the middle. Ordered powders to be continued ; warm fomentations to abdomen. Diarrhœa continued obstinate, requiring astringents and anodynes repeatedly, to restrain them ; slight febrile exacerbations in the afternoon, continued until the 20th day, when convalescence was slowly established, though the little patient was greatly emaciated by the protracted and wasting diarrhœa. In this case the rose-colored spots were not observed.

CASES 5, 6 and 7,—A yellow boy, age 8, and two girls, age respectively 11 and 13, were so identical in their character, and simultaneous in their invasion and progress, that a general description will suffice for all. They occupied the same cabin, and were attacked the same night, (March 15 ;) complained of loss of appetite, great weakness, head-ache, and had experienced some chilliness ; pulse slightly accelerated, and had the characteristic vibratory thrill ; skin preternaturally warm. I determined to watch these cases through the “ even tenor of their way,” without interference on my part, unless some complication should arise, making interference necessary. I therefore contented myself with absolute rest, diet of rice broth, a free indulgence in mucilaginous drinks, and tepid sponging.

March 17.—Condition unchanged, except that the constipation had given place to a mild form of diarrhœa ; tongue acuminate, and tipped with red at the edges. Ordered Dover’s powder at night, which had the effect to induce rest and gentle diaphoresis—no other treatment was found necessary. At the end of the second week, they were dismissed. The “ spots “ were not observed in either case ; possibly in two they may have existed, but were not observable on account of color.

CASE 8.—George, a servant, age 30, had been waiting on his master, and having lost much sleep, complained of weariness and head-ache, and was sent to his cabin on the night of the 16th, to procure some rest. The following morning he was found with high fever—

with raving and incoherent delirium ; pulse 120, quick and strong ; skin intensely hot ; extreme restlessness ; tongue covered with a white, clammy coat. Bled him a quart, which reduced the pulse in force and frequency ; ordered ice to the head, and free sponging to the general surface. At night, the bowels not having been moved, castor oil was given.

March 18.—Bowels moved twice by the oil ; pulse 100, quick, vibratory, but without force ; surface hot, particularly the head, thorax and abdomen ; thirst urgent ; delirium not so violent ; answers questions when asked in a loud tone of voice. *R.*—Phosphate of potash, ʒ ss, carb. soda, ʒ ss, dissolved in 8 oz. water ; a tablespoonfull every four hours ; continued ice cap and tepid sponging.

March 19.—Passed a restless night ; delirium continues ; pulse small and rapid ; extremities cool ; bowels tender on pressure, moved three times ; stools liquid and foamy ; tongue dry ; agitation of the voluntary muscles, upon the slightest effort to direct or control them. Ordered blisters to the extremities and back of the neck ; fomentations with whiskey to the bowels ; frictions with hot turpentine liniment, to the spine ; carb. ammonia, grs. 20, every four hours ; wine whey in the intervals.

March 20.—Better this morning ; pulse 98, fuller and stronger ; surface uniformly warm, and bathed in gentle perspiration ; mind calm and tranquil ; complains of great weakness ; tongue still dry ; bowels slightly tender, and gurgling under pressure ; moved four times, actions small and liquid. Ordered pulv. rhatany, Doveri and hydrarg. cum. creta, aa, grs. 4, every six hours, until the bowels are restrained. Continued ammonia at longer intervals, and whey and fomentations to abdomen.

March 21.—Passed a comfortable night ; all the symptoms improved ; nothing now remained to be combatted but a mild diarrhoea, which is easily kept in abeyance by one of the astringent powders given at night. At the end of two weeks convalescence was firmly established. The rose-colored spots were not observed.

CASE 9.—Patsy, a bright mulatto, age 31—the mother of five children ; for twelve months past the subject of pulmonary consumption ; was much emaciated, though with strength enough to be up and attend to some light duties ; appetite good ; bowels regular. Was attacked on the 18th with a chill, followed by fever and delirium, pain in the side and dyspnea ; pulse rapid and compressible. A vein was opened, but only a few ounces of blood were lost, until syncope compelled me to desist. Although the symptoms, general

and physiognomical, were so like Typhoid Fever, yet being not unlike the closing scene of some cases of phthisis, I was not a little embarrassed to determine the diagnosis. The pulse remaining feeble, and the nervous system agitated after the bleeding, I prescribed sinapisms to the chest, and a teaspoonfull of the following mixture every two hours. R.—Tinct. sanguinaria, tinct. valerian, syrup squills, equal parts.—Mix.

March 19.—Fever and delirium continued ; expectoration copious and purulent ; pain and dyspnea returned ; pulse rapid and vibratory ; surface bathed in perspiration ; tongue brown and moist ; bowels not tender, but a loud gurgling noise is produced by the slightest pressure. Ordered oil and turpentine, a teaspoonfull of each, to be repeated in four hours, if it does not act ; emulsion of carb. ammonia and camphor, with gum Arabic and loaf sugar every two hours.

March 20.—Delirium disappeared ; pulse slower and more distinct ; surface pleasant ; oil acted three times. In the afternoon fever and delirium again came on.

March 21.—Passed a restless night, but better this morning ; coughs but little ; expectorates easily ; bowels moved four times, liquid, yellow, containing flocculi of fibrinous appearance ; tongue brown and dry ; no thirst. Rhatany and Dover's powders were added to former prescription. The case went on from day to day, without perceivable change, until the end of the second week, when the rose-colored spots appeared freely upon the chest, arms, neck and face, giving to the patient a singularly "spotted" appearance. On the following day they were not to be seen ; neither their "coming or going" made any impression on the progress of the case. The febrile paroxysms were not so distinctly marked, but the diarrhœa, meteorism, hiccough and low delirium continued, and emaciation progressed until, at the end of eight weeks, her body was covered with patechia and bed sores, and there seemed scarcely a possibility of life. But under the influence of tonics, a generous diet and the constant use of astringents, she gradually emerged from a condition apparently so hopeless, and is now in the enjoyment of robust health. Auscultation and percussion failing to detect any pulmonary lesion.

CASE 10.—I will briefly state the following case, on account of the peculiarity of pulse, which marked it throughout its whole course :

Sandy, a mulatto boy, age 15—according to his *own account*, was attacked with diarrhœa about the 1st of March, but did not complain or quit his work until the 20th. Complained of nothing but weak-

ness ; pulse 50 per minute, full, solemn and slow ; countenance had a dull, listless expression ; enunciated slowly ; skin dry and harsh, not unnaturally warm ; bowels tympanetic, though not tender ; tongue moist, dry and flabby. A hot saline bath, followed by Dover's powder and hydrarg. cum. creta, was directed every night, and a decoction of briar root, during the day, sufficient to restrain the bowels ; the diet was restricted to sago and rice water, and rest in the horizontal position rigidly enjoined. Under this treatment, the bowels were restrained, the skin resumed its suspended functions, and the pulse gradually returned to a healthy beat. The patient recovered in two weeks after treatment commenced.

CASE 11.—Sally, age 38, the mother of several children, had had Typhoid Fever in October previous, (contracted while waiting on her husband,) from which she had never fully recovered. Being much fatigued by waiting on her children, some of whom are the subjects of the preceding report, she was taken ill with fever, head-ache and delirium, on 21st of March. On 22d, the symptoms rapidly assumed the most malignant type ; pulse quick and feeble ; breathing slow and almost stertorous ; tongue black and dry ; teeth and lips encrusted with sordees ; abdomen tympanetic ; diarrhœa colliquative and offensive ; hiccough distressing. It would occupy too much space to give the daily report of this case, as it stands on my note book. Suffice it to say, that ammonia and camphor, in scruple doses, were relied upon as stimulants, and extract rhatany and decoction of briar root, were the available astringents. Blisters, wine and the various antispasmodics, were brought into requisition in the course of the protracted treatment, which lasted nearly five months ; at the end of which time, she retained very little of her former self, for she was without hair, epidermis or nails, in short, she was *sans* every thing but the skeleton. She, however, slowly recovered, and is now enjoying good health.

CASES 12 and 13.—A boy and girl, ages respectively 12 and 17, were attacked about the 1st of April, with mild symptoms of Typhoid Fever—so mild, indeed, as scarcely to demand treatment, or merit a place in this report, but for the order of their succession. Slight fever in the afternoon, recurring daily, a slight diarrhœa occurring on the second day, loss of appetite and some lassitude, constituted the morbid phenomena, which were easily overcome by rest, proper diet, and anodyne febrifuge. The rose-colored spots were observed in the two cases.

REMARKS.—It might be inferred from the number of cases occur-

ring in the same family, and in such rapid succession, that there was some intense local cause operating in the production of the disease, but no such cause could be found. The family residence occupied a high and beautiful site, the table lands upon which it is situated having a sandy substratum, dry and undulating. The "cabins" were clean, neat and comfortable—in short, there was nothing in locality or domestic economy, which could be suspected as the actual or even secondary cause of the disease. The true cause, I apprehend, is to be found in contagion; and the following facts are relied upon in support of that opinion:

1. Typhoid Fever had never been known in that section of the country, although constantly under the same general and local influences, so far as they are appreciable to the senses, as the efficient causes of disease or death.

2. That the neighborhood most severely scourged with Typhoid Fever, had heretofore enjoyed the greatest exemption from diseases of a malarial origin.

3. The disease was imported from the vicinity of Danville, Kentucky, in the summer of 1851; from that time until the fall of 1852, about forty cases occurred in a circumference of eight or ten miles, and in almost every instance, there were the *conditions pre-existent* to contagion, viz: contact with the disease for a period varying from a few days to as many weeks, prior to the invasion.

The facts, as I am advised, are these: Dr. B. and family were on a visit to friends residing in the vicinity of Danville, Ky., where a mild type of Typhoid Fever was then prevailing. Shortly after his return to his residence near the Dripping Springs, a servant girl, who accompanied his family, and who had been exposed, while travelling, to contact with the disease, sickened and died of Typhoid Fever. Twelve other cases occurred, in rapid succession, in Dr. B.'s family, all servants, six of whom died; among the latter, was the husband of the woman Sally, the property of Mr. C., whose case is reported above, who was permitted to visit and nurse her husband. Soon after his death, and her return home, she was attacked with the fever and recovered, after a protracted illness. About three weeks after Sally was attacked, a woman who occupied the same cabin, was attacked and died, after an illness of five weeks, which was about the 1st of January, 1852. No other case occurred until Mr. C's., about the middle of February. It may be proper to say, that there was no suspicion of its contagious character, and every member of the family was freely exposed.

A Mr. Lewis, living in the family of Mr. C., temporarily, was attacked with the fever about the middle of March, and removed to his own home, about a mile distant—he recovered. His wife, also, had the disease, from which she recovered, after a long illness. Mr. Rountree and wife, near neighbors of Mr. Lewis, were attacked in May, and both died about the 1st of June.

Mrs. C. and son, residing in Bowling Green, returned, after the death of their relations, for whom they had been performing the arduous duties of nurse—both were the subjects of Typhoid Fever, which ran a mild course, and terminated in recovery, under my care, in four weeks. The lady exhibited the well defined rose-colored spots.

Calvin, a free boy of color, apprenticed to a tinner in town, visited some of his relations at Mr. C's., who were then ill of the fever; two weeks after, he had Typhoid Fever, and died at the end of three weeks, with perforation of the bowels; this case was under the care of my esteemed friend, Dr. Wright. Two other cases occurred in town during the following month; one died of perforation of the bowels, as I was informed by the attending physician, the other recovered under my care. The rose-colored spots were absent in both. I could not ascertain that the last case had been exposed by contact with any one affected with fever, though there was an unquestionable identity with cases in the foregoing report.

I regret that I am not able to furnish more extended and minute reports of cases, not falling immediately under my care; and the physicians by whom they were treated, not having preserved notes, I can only offer such history as they have been kind enough to furnish me from memory. The facts, however, as far as they go, may be relied on—from which may be deduced the following conclusions:

1. That Typhoid Fever belongs, remotely, to that group, or family of diseases, of which small pox may be taken as the *type species*. That it is marked by many of the phenomena of that *species*, modified, it is true, but still bearing a strong family likeness. That, in the order and succession of these phenomena and relationships, it is as unvarying as small pox itself. That like small pox, it possesses the power, under certain circumstances, of eradicating from the system, pre-existing diseases—even profound pulmonary lesion, as in the case of Patsy. That all ages and sexes, if not equally, are alike subject to it. That it possesses the power, in common with other specific diseases, of propagation by contagion—though it must be admitted that its period of incubation is more variable and uncertain.

And lastly, that it has a certain definite course to run, which may be complicated and protracted, but can never be cut short.

If these propositions be true—and I think they may be safely assumed, not only from the results of the limited number of cases submitted, but from the extended observations of more acute observers—reason and analogy would point to a rational therapeutics. No one now thinks of cutting short small pox or measles, by heroic treatment; no one now thinks of weakening the powers of the system by drastic or depletory measures, with a view to cure. On the contrary, they husband the energies, and protect the vital organs, that the system may bear itself proudly through the “inevitable storm.” No one dreams of a “specific” remedy for a “specific” disease—it would be a paradox—for a disease that would yield to *such* a remedy, would at once cease to be specific. And such is true of Typhoid Fever. So long as it pursues the “even tenor of its way,” developing, in due order and succession, the phenomena and relationships which mark its “type,” “non-interference” is the best and highest policy. But a disease so prone to commit excesses, and in its slow and insidious march, often involving organs not legitimately within the sphere of its influence, should be watched with sleepless vigilance; and discarding all crotchets and theories, the physician should come to the rescue of the vital organs, whenever attacked, by all the means in his power. Thus the lancet and stimulants—the extremes of “expectant” and positive treatment—may, by turns, become necessary. There is, however, one class of popular remedies from which I cannot withhold my most unqualified disapprobation. I mean purgatives, and at their head, mercurials. However successful “*vena cavaism*” may be in ordinary types of fever, in this, I am persuaded, it is almost inevitably fatal—indeed, when called to a case of Typhoid Fever, I estimate the chances of recovery in an inverse ratio to the quantity of calomel taken. It is almost certain to goad the bowels to fatal hemorrhage or destructive ulceration. The same is true, though not to an equal extent, of other irritant purgatives. Cases 1st and 2d strongly confirm the justness of this conclusion; they were the only cases treated with this class of remedies, and the only cases attended by hemorrhage, or fatally. And if there were no finger-boards of experience to guide us in the right path, the fact, now most conclusively established, that the lesion of the bowels, if not the primary, is almost invariably the accompanying and pathognomic lesion—should admonish us to soothe, rather than increase the already existing irritation. Indeed, so constant and in-

variable is this irritation, that it was present in every case referred to, and in several was the premonitory symptom; while the rose-colored spots, so valued as a diagnostic sign, were absent in a majority.

In connection with this subject, I must not omit to mention the happy results I have obtained from the use of nitrate of silver, in the advanced stages of ulceration of the bowels and protracted diarrhœa, given in $\frac{1}{4}$ to $\frac{1}{2}$ grain in solution, or in pill, in combination with hyosciamus. Besides its general powers as a tonic and styp-tic, being brought in direct contact with the ulcerated surfaces, it stimulates them to take on a healthy action, and thus puts a stop to wasting diarrhœa, which no astringent has the power to control beyond a few hours. My experience with it has been limited, but from its results, I do not hesitate to say, that it is the best remedy afforded by our *Materia Medica*, when given at the proper juncture.

ART. LXXV.—ON THE USE OF EXT. BELLADONNA IN THE TREATMENT OF OBSTINATE VOMITINGS IN PREGNANT WOMEN.

By R. L. SCRUGGS, M. D. of Louisiana.

It is not a little surprising that an article capable of promptly arresting so grave a disease as the obstinate, and even dangerous vomitings, which often supervene in the course of pregnancy, should have been so entirely neglected or overlooked by the profession generally; particularly when it is remembered that M. Bretonneau, more than eight years ago, announced the important fact to the profession in Europe, and pointed out the circumstances under which it ought to be used, the manner of applying it, &c. In the many recent discussions and papers read upon the subject of the propriety of inducing premature labor for this disease, I am surprised to see no allusion made to this remedy whatever. Even in that excellent and unique work, published in 1851, by Chas. D. Meigs, upon "woman and her diseases," no mention is made of it, notwithstanding he says that the affection is so untractable as to justify the induction of premature labor. M. Trousseau, in a clinical lecture, delivered at the Hospital Neckar, in January, 1848, thus alludes to M. Bretonneau's theory and practice in these cases.*

* Yandell's Letters from Paris.

"Five years ago," remarked the professor, "a lady, pregnant for the first time, who, for six weeks, had vomited both liquids and solids, called in M. Bretonneau. He found the patient in a most alarming state—the affection progressed rapidly, and threatened to become inevitably fatal. This woman, when questioned, complained of sharp uterine pains. In a primipara, the fibres of the uterus are not broken in, if you will allow the expression, and not habituated to the process, and allow themselves to be distended with difficulty; and it is this which causes the pain. M. Bretonneau thought that the uterine pains were the cause of the other symptoms, and that if he succeeded in mastering them, he would overcome the sympathetic vomitings of the patient. Acting upon this idea, he covered the hypogastrium repeatedly with a mixture of belladonna; the vomitings ceased the same day, and recovery ensued. Sometime afterwards, he had occasion to observe another case, where the pains of the uterus did not exist; but he thought that even if the brain did not perceive the pains of the uterus, the ganglia might take note of them, and reaction occur. To modify these accidents, he believed it to be sufficient to prescribe the belladonna mixture, and was again gratified with complete success. The result of these and similar cases justifies him, he thinks, in laying down the following principle:

"Whenever, in a woman, pregnant for the first time, or many times, vomitings supervene during the course of gestation, frictions should be made upon the hypogastrium with a mixture of belladonna, and the vomitings will cease.

The Professor then asks, "In what manner does the belladonna act? I confess it is impossible to determine. Can it be supposed that the foetus, in being developed, painfully distends the fibres of the uterus; that the vomitings are sympathetic, like those which supervene in cystitis, for example? This is possible. Whether it be this or something else, it is upon this hypothesis that M. Bretonneau has employed his remedy. He has promulgated his theory, and has endeavored to confirm it by facts. The foetus distends the uterus, the nervous ganglia takes cognizance of it, and sympathetic vomitings are the consequence. This is the theory, which you may adopt or not, but which must be admitted to conform, with marvellous exactness to the therapeutical results."

I had but just seen these opinions of M. Bretonneau announced, when I had an opportunity of making a practical application of them. My first patient, however, presented other symptoms than those described by him, for the relief of which he prescribed the belladonna mixture with such confidence and success. The result in this instance was equally fortunate.

Called in consultation, July 14th, 1848, to Mrs. L. W. D., aet. 24. This lady had been married about two years, and had miscarried once during the time, at about the fourth month of utero-gestation. She had been attended for several days before I saw her, by an ex-

perienced and scientific physician, who, failing in his efforts to relieve her of a most distressing cough, solicited my assistance.

Pregnancy, at the time of my visit, had not been suspected ; but upon a more thorough examination of the case, assisted by the answers elicited from her by questions in reference to this condition, we satisfied ourselves of the existence of pregnancy. I immediately suggested to my colleague the theory of M. Bretonneau, and asked, if this theory be correct, might not the sympathetic irritation produced by the distended and fretted uterine fibres react as well upon the bronchial mucous membrane—thus producing cough—as upon the stomach ? He caught at the idea at once, and we directed equal parts of ext. belladonna and lard to be rubbed together, and frictions made with the mixture, every four hours until our return. The next morning we were much gratified to find that the cough had entirely disappeared, and the patient feeling, of course, greatly relieved. She got up in a short time, and continued to enjoy moderately good health until she removed to Memphis when we lost sight of her, but understood she was taken ill some months afterwards, and after suffering for several days, was delivered of a dead fœtus, at about the seventh month of utero-gestation. Having repeatedly seen the vomiting return after having been arrested by the application of belladonna over the hypogastrium, and again arrested by the same means, as promptly as at first, I am inclined to think now, that had the belladonna been used again in her case she might have gone to her full term, and possibly borne a living child.

Since the occurrence of this case, I have had repeated opportunities of testing the virtue of this article in similar cases, and in no instance has it failed to relieve the patient. It may be proper to remark, however, that any complications that may be found to co-exist with this condition, such as gastritis, gastro-enteritis, constipation, &c., ought to be treated with their appropriate remedies ; and when the vomiting has continued for a considerable time, I have usually applied cups, fomentations, &c., under the impression that the excessive vomiting itself had excited inflammation of the gastric mucous membrane. But this has probably been an unnecessary proceeding, since it would appear from the observations of some of the most distinguished physicians of Europe, that no such condition of the mucous membrane of the stomach has been found to exist in subjects examined after death from this disease. My own observations tend also to establish this fact. At least, I have repeatedly found that the most active means that could be used for the subduction of the supposed gastric

inflammation, proved altogether unavailing until the belladonna was applied over the hypogastrium, when the vomiting has invariably ceased. Very recently I delivered a young married lady of a healthy female child, who, about the middle of December last, was taken with excessive vomiting, attended with such violent straining, that when I arrived, I found that the matters ejected from the stomach were streaked with blood. The stomach being also tender to the touch, I proposed at once, the application of the cups. But no persuasion could induce her to allow scarifications, nor even dry cupping. Failing in this, I ordered a purgative enema, a stimulating foot bath, a mustard cataplasm over the stomach, and used a variety of anti-emetic mixtures, but all to no purpose. I then applied a belladonna plaster over the hypogastrium, and very soon she was relieved of her nausea and vomiting, and had no return of it for eight or ten days, when the plaster was again resorted to, which relieved her as promptly as at first, and she had no return of it afterwards.

I have now under my charge a young married lady, pregnant about six months, who suffered for a considerable time before she applied to me for relief. The belladonna here, as usual, was prompt and effectual in stopping the vomiting. She made use of it once or twice afterwards upon feeling slight nausea, but she is now, and has been for several weeks, perfectly healthy and free from any trouble of that sort.

M. Dubois, while upon the subject of the "induction of abortion in the vomiting of pregnant women," during a recent discussion in the *Academie de Medicine*, "stated the results of his experience in relation to obstinate vomiting in pregnancy. In proof that this is often a more dangerous occurrence than is usually supposed, he stated that in the course of thirteen years, he had met with twenty cases in which it had proved fatal. That obstinate vomiting is but the exaggeration of the natural sympathetic vomiting of pregnancy, and not due to any special lesion, is proved by the facts that at the autopsies nothing is found, and that when the process of gestation becomes arrested, whether spontaneously or artificially, the vomiting is ordinarily put an end to, although the woman may not be delivered until several days after, of a dead child, and may yet die of the effects of what she has undergone." (*Amer. Journal of the Medical Sciences*, Jan. 1853.)

The observations of Dubois, Bretonneau, Ems, Duclos, Trousseau, and others, seem to go to establish the fact, that, no matter how violent or continued the vomitings are in these cases, there is no real in-

flammation of the stomach produced by them, and consequently any anti-phlogistic measures resorted to in view of this condition of the stomach, would appear to be, to say the least of it, unnecessary. Notwithstanding my own observations tend to establish the same fact, yet I cannot recommend an entire neglect of such adjuvant measures as would naturally suggest themselves to the intelligent physician. The bowels, of course, ought to be attended to, and the cups, fomentations, poultices, &c., may, I think, be justifiably resorted to upon a mere suspicion of gastric inflammation, for the patient is but slightly inconvenienced by them, and they will certainly relieve any inflammation that may exist. But I must protest against the blister. It will do no good at the time, and prove a source of great annoyance to the patient afterwards.

I have also used the belladonna ointment in cases of painful menstruation, with apparent benefit, but my experience with it, in the treatment of these latter cases, is too limited to justify me in recommending it with any great confidence.

I have used it recently in a very violent case of dismenorrhœa, and it appeared to assist in relieving the pain; but so many other measures were resorted to, at the time, for the relief of this young lady, that it is impossible to determine what part, if any, the belladonna acted in giving the relief. I think, however it is worthy a still further trial in these cases.

In conclusion I would suggest that it may be applied much more conveniently, and with equal efficiency, to the hypogastrium, by spreading the extract, undiluted, upon soft leather, in the manner of using the exp. cantharides, than by the plan originally suggested, of rubbing it on with the hand. This plan has the advantage, first, being more cleanly, and secondly, may be re-applied by the patient herself, at any time when pain or nausea is felt.

ART. LXXVI.—MALIGNANT EPIDEMIC DYSENTERY.

Titus County, Texas, June 9th, 1853.

DR. R. L. SCRUGGS :

My Dear Sir—I must again encroach on your good nature, by asking your advice in the treatment of a disease which is spreading its ravages throughout our country, and baffling all the remedies which we can bring into play against it. I allude to Dysentery or

Flux, as it is usually denominated, which is now prevailing to a fearful extent, and in the majority of instances proving fatal. I will attempt to enumerate some of the symptoms of the disease, and the manner in which the attack usually commences, from which you can form a better idea as to its nature and treatment; and I shall wait with no little anxiety, I can assure you, for a reply. The disease is commonly preceded, for some days, by a general feeling of malaise, loss of appetite, with an unpleasant taste in the mouth, nausea and wandering pains in the bowels, while more or less of constipation attends, and is usually, though not always, ushered in by a chill of slight severity, followed by reaction more or less intense, as evinced by an increased warmth of the skin and frequent pulse. A frequent irresistible desire to evacuate the bowels, accompanied with violent pains in the abdomen, which immediately precede every discharge. The disjections are at first composed of the natural fecal matter broken down and reduced to a liquid form, but ultimately assume a sanguineous or muco-sanguineous character, and are voided very frequently, but in small quantities. In some instances pure blood is discharged, but for the most part it is mixed with mucous, cheesy matter, albumen or lymph; occasionally hardened lumps of fecal matter are expelled from the bowel, giving ease and comfort to the patient. The tongue is loaded with a white fur in the centre, while the edges have a livid hue, or is perfectly clean, and of a dingy red color; this last symptom we look upon as diagnostic of the disease. In the latter stage the organ becomes, in a large number of cases, dry and pointed, and sometimes covered with small ulcers. Again, the disease will come on very suddenly. There is the most violent tormina, great restlessness and delirium. The stomach is most always affected, large quantities of blood being sometimes discharged mixed with the secretions of the organ variously changed, being sometimes of an indigo color, with now and then a lump of grumous blood and putrid matter. The tongue in these instances, is usually very red and very dry, and the pulse is small, frequent and quick, but not always corded, while the thirst is insatiable, and the skin is generally preternaturally cool. These cases always proceed rapidly to a fatal termination. The discharges from the bowels in these cases, are a bloody mucous and are involuntary, the patient passing them without knowing it. There is a continual discharge of blood both from the stomach and bowels.

As to the treatment, it is useless to give it. Our chief remedies are cups, warm fomentations, blisters and astringents. Opium in

the greater number of cases, seems to be contraindicated, for the brain is always more or less affected. The most powerful astringents, such as the sugar of lead, nut galls, tannin, catechu, kino, &c., have no more effect in restraining the bowels than so much cold water. Five cases have come under my management, one of which died, the others were ordinary cases, and were treated on the turpentine plan. There is none of the disease in my neighborhood at present, but it is gradually creeping towards us.

Please write to me as soon as you receive this, and tell me what to do with the disease. In the last ten days six cases have died in Linden, a good many in and around Dangerfield, and several around Jefferson.

I remain your friend and obedient servant,
JNO. PAUL CUNLIFFE.

ART. LXXVII.—MORTALITY OF NASHVILLE.

DRAWN FROM THE CEMETERY REPORTS.

By DR. RICHARD O. CURREY.

In the March number of this Journal we promised in a prefatory article to present our readers with synoptical tables, drawn from the Cemetery records, as illustrating the mortality and the prevalent diseases of our city and vicinity. We now resume this work, only regretting that numerous engagements prevented us from attending to it before. We were desirous of being accurate in our work, and therefore gave to the tables a large share of our attention before we ventured upon putting them in print.

From 1822, when the Cemetery was set apart for a burial place, to 1828, the records give only the sum total of each year's interments, no note having been made of the diseases of which the interred died. We therefore present these six years in table 1.

TABLE 1.

	1822.	1823.	1824.	1825.	1826.	1827.	Total in 6 years.
White Males	27	22	19	18	17	24	127
White Females	10	5	5	12	10	9	51
White Infants	14	23	35	13	28	37	150
Black Males	7	5	5	6	11	11	45
Black Females		5	11	7	12	13	48
Black Infants	11	14	27	15	27	35	122
Total	69	74	102	71	105	129	550

TABLE 2.

1828.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	2	2	7		2	2	2	2	4	3	2	5	33
White Females		2		1			1		1	2	1		8
White Infants	2	3	3	4	1	5	7	5	4	8	5	5	52
Black Males	2	1	2	3	1	4	2	1	2	1	1	3	23
Black Females		1	2		3		1	1	2		1		11
Black Infants	2	5	1	4	2	10	5	1	1	1	4	3	39
Total	8	14	15	12	9	21	18	10	14	15	14	16	166
Diseases.													
Bilious Fever.....							1	2		2	1		
Flux							3	1	1	2		3	
Consumption							1			2		1	
Childbed							1		1				
Dropsy								1				1	
Quincy									1	2			
Intemperance											2	1	
Measles												3	
Inflm. of the Brain.....							1						

TABLE 3.

1829.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
White Males.....	2	2	2	1	4	1	2	8	2	6	3	1	34
White Females.....		3	2			2	5	1	1		2		16
White Infants.....	5	6	3	3	3	4	19	9	9	3	5	1	70
Black Males.....	1	2	1	1		3	4	1		2	2		17
Black Females.....		2	2	1	4	5	1		1	3	1	1	21
Black Infants.....	4	2	2		3	11	7	10	6		5		50
Total.....	12	17	12	6	14	26	38	29	19	14	18	3	208
Diseases.													
Locked Jaw.....	1										1		
Consumption.....	1	1	2	2	4	2	1	1	2	1	2		
Bowel Complaint.....	2	3	2				9	10	3	1			
Measles.....	2	3			1								
Fevers.....				1	2	8	5	3	2	7	1	1	
Old age.....		1					1			1			
Puerperal Fever.....						1					2		
Intemperance.....							1	1			1		
Convulsions.....									1				
Croup.....									1				
Dropsy.....												1	

** No Records for 1830, '31, to May 1832.

TABLE 4.

[illegible]

TABLE 5.

1833.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	11	7	2	8	9	26	4	1	3	2	2	2	78
White Females.....	8	3	4		3	4	4	1	1	3	1	2	34
White Infants.....	4	9	4	5	9	15	13	4	6	7	4	6	86
Black Males	4	7	3	6	6	12	1	1	4	4			48
Black Females	3	9	4	3	9	14	3	2		4	2	2	55
Black Infants	3	5	4	1	6	13	7	5		3	4	3	54
Total	33	40	21	23	42	84	32	15	14	23	13	15	355
Diseases.													
Pleurisy	1			1								1	3
Pneumonia.....	1		2	1	2								6
Cholera	14	24	8	7	32	77	11		1				174
Consumption	3		2	3	3	2		2	3			1	19
Whoopingcough	1	3					3	1	1				9
Measles	1								1				2
Inflam. Brain.....	2					2							4
Intemperance	2		1		1				1	2		1	8
Scarlet Fever		3	1	1			2	1			3	3	14
Old age		1		1						1			3
Worms.....		1		2			1		1	1	1		7
Fever		2	1		1			2	1	3	2		12
Teething		2	1	2		2	1						8
Croup.....			1										1
Puerperal Fever						1	2			1	1	1	6
Bowel Complaint								3	1	7	1		12
Scrofula								2		1			3
Epilepsy.....									3				3
Sore Throat								1	1	2	2	1	7

White adults, 112, Black adults, 103. Total adults 215
 " children, 86. " children, 54. " children 140
 White males and black females, - - - - - 133
 " females " males, - - - - - 82

Difference, 51

TABLE 6.

1834.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	3	2	9	6	1	2	1	5	6	2	1	4	42
White Females.....	2	1	3	1	2	2	2	3	2	1			19
White Infants.....	6	3	4	3	3	8	6	7	3	4	4	1	52
Black Males	4			1	3		2		1	1	1		13
Black Females	2	4	1	1	1	2	1		1	2	1		16
Black Infants	6	1	3	1		4	6	5	2	1	3	1	33
Total	23	11	20	13	10	18	18	20	15	11	10	6	175
Diseases.													
Intemperance	2	1	2			1		2				1	9
Childbed	1												1
Scarlet Fever	7	2	1		1	2	4	1			1		19
Old age	1	2											3
Pleurisy	1			1		1						1	4
Bowel Complaint	3		2		1	4	8	5	5	1	4		28
Hydrocephalus	1			1	1	1							4
Consumption		2	5	2	3	1	3	2	3		1	1	23
Apoplexy.....			1	1									2
Scurvy			1										1
Inflm. Lungs				1							1		2
Teething.....				1			3	4					8
Colic.....		1		1									2
Croup.....				1						2			3
Inflm. Brain.....				1	1		1				1		4
Fevers						1		2	3	3			9
Worms.....						1	1	1	1		1		5
Whoopingcough							1	1					2
Unknown													45

White adults, 61. Black adults, 29. Total, adults, 90
 " children, 52. " children, 33. " children, 85
 White males and black females, - - - - 58
 " females " males, - - - - 32

Difference, 26

TABLE 7.

1835.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	4	2	1	4	4	13	10	1	12	16	6	1	74
White Females.....	3	4	0	1	3	11	4	6	5	10	3	5	55
White Infants.....	8	1	4	1	7	20	9	7	6	10	5	1	79
Black Males		0	1	2	0	14	10	2	6	5	2	4	46
Black Females		3	3	2	1	7	5	5	9	7	1	3	46
Black Infants	1	2	6	1	0	4	4	5	4	5	2	2	36
Total	16	12	15	11	15	69	42	26	42	53	19	16	336
Diseases.													
Intemperance	1			2			1				1		5
Scarlet Fever	1		1	1									3
Old age	1								1				2
Consumption	1	1	2	2	2	5	3	3	2	1	1	3	26
Childbed	1		1					2		1			5
Teething	4	2											6
Pneumonia.....	3												3
Bowel Complaint		1	3		3	3		4	8	10	2	3	37
Fevers		1											1
Worms.....			1			1	1						3
Croup.....			1	1		1							3
Cholera					4	41	21						66
Small Pox					1		1	4	25	31	9	3	74
Typhus Fever					2	1							3
Measles						9	1	4	1				15
Bilious Fever							7	1	1	5	3	4	21
Pleurisy											1		1

White adults, 129. Black adults, 92. Total adults, 221
 " children, 79. Black children 36. " children, 115

White males and black females, - - - - - 120

" females " males, - - - - - 101

Difference, 19

TABLE 8.

[illegible]

ART. LXXVIII.—REMARKS ON QUACKERY.

Russelville, Jefferson Co., Ten., May 21, 1853.

Dr. F. A. RAMSEY:

Dear Sir:—I have received a specimen number of "the Southern Journal of the Medical and Physical Science," and shall be constrained by the kindness of the editors to subscribe for it, one of them being my esteemed friend and first Professor of Chemistry, Dr. R. O. Currey, which consideration alone would suffice to make me a subscriber.

I would suggest to your consideration the following plan that presented itself to my mind in regard to the quack nostrums and systems of the day. I will be one of a hundred to give five dollars each for the best written thesis on the nostrums with which our country is flooded, showing the fulsome imposition, the injurious effects, the rascality, and fraud practiced by the venders, inventors, etc., and five dollars more for its gratuitous distribution, particularly among merchants. The theses should be submitted to the inspection of competent, disinterested and impartial medical men, who should award the premium, allowing any man in the state to enter the list. The committee to be elected by ballot, I would propose, from the members of the East Tennessee Medical Society, at their next annual meeting. I feel assured that no sinister or improper motive will be imputed by the members of his profession, to the author of a plan, however futile or premature it may prove, for the suppression of so great an evil. I would also suggest the propriety of discussing the practicability of legislation for the suppression of charlatanism. The law professes to protect the property of its citizens from the mercenary villain; why should it not protect the lives—the bodies, if you please—from the murderous quack. Many intelligent men, recognized as such, at least in regard to their own particular avocations, are incompetent judges, seldom confessedly so, of the merits of a physician, and are liable to serious imposition. They are, in a measure, protected from impostors in the legal profession, although they are, peradventure, less liable to be imposed upon by one professing a knowledge of law; though in regard to the intricacies of either profession, they may be equally ignorant. The legislature wisely determined the common farmer, mechanic, merchant, and others, who have not devoted their attention to the acquirement of legal knowledge, to be incompetent to judge of the attainments or proficiency of the lawyer, or his fitness to engage in the practice of the profession. Hence they are not permitted to

say that Mr. Ayer, or Thompson, or Townsend, shall take charge of their suit before he has passed the ordeal of a scrutinizing examination before men presumed to be profoundly skilled in their profession, men who have made the abstruse science of law their study for years ; and, in truth, they are the only men qualified to examine the candidate for the bar. How ridiculous and absurd it would be to send him to Mr. John Smith, Samuel Brown and Ezekiel Jones, to pass an examination on a science of which the aforesaid Smith, Brown and Jones were totally ignorant, being about as competent to examine students of Blackstone as they would be to describe the vegetable productions of the moon.

But the physician needs no other recommendation than a letter of introduction from Mr. Smith, Mr. Brown and Mr. Jones, and some of their acquaintances in a distant neighborhood, to commence puking to death with lobelia, ptyalizing to destruction with mercury, or bleeding to death with the lancet. I have thought it the duty of the legislature to consider this subject seriously, and adopt a remedy. I have thought of the propriety of that body appointing a committee of learned men, medical of course, or authorizing the State Medical Society, or as many graduates as could be assembled, or would assemble at the State capital, for the purpose of selecting by ballot, annually, a committee of learned physicians whose duty it shall be to examine, license, or reject every man, regardless of diploma, who dares assume the fearfully responsible duties of our philanthropic, but much abused and ignored profession. I would merely throw out these hints for the maturer deliberation of the medical brethren. I could write for a fortnight on the subject. I have located in a heart-trying neighborhood to the physician. I can enumerate within ten or twelve miles distance from this village seven men who profess a knowledge, or at least who pretend to practice—to the vulgar—the mysterious, yet simple art of healing—who arrogantly assume the title of doctor, without so much as seeing a lecture room, witnessing—much less making—a single dissection, or anything appertaining thereto. Indeed, the large majority disregard the books, never having pretended to receive instruction from a preceptor ; but doubtless think, or at least, make their patients think, that they are possessed of all knowledge essential to the successful treatment of typhoid fever, fractured limb, or any other case in medicine or surgery.—If you think any of my remarks worthy to occupy a place in the “Southern Journal of Medical and Physical Sciences, you are at liberty to use them.

Your friend and ob't serv't,

WM. W. ALEXANDER.

ART. LXXIX.—MOTIVE POWER OF THE BLOOD PROVED BY EXPERIMENTS ON FOUR CROCODILES—ONE BROUGHT TO LIFE.

By SAMUEL A. CARTWRIGHT, M. D., N. Orleans, late of Natchez.

Four crocodiles were subjected to vivisection in the courtyard of my office, on the 1st and 6th of the present month. One was nearly ten feet long, another about six and a half feet, and the other two of smaller size.

June 1st, at half past 9 o'clock, I tied the trachea of one of the smaller sized saurians, and turned it loose. At twelve minutes before 10 o'clock, I tied the trachea of another one, and proceeded at once to open the thorax and abdomen, exposing the viscera, even the heart, to view, by opening the pericardium. It was then taken from the table and placed on the floor. The largest crocodile was surrendered to Dr. Dowler, to perform any experiments he might see proper. By this time a number of medical gentlemen had assembled to witness the experiments, viz : Drs. Copes, Nutt, Hale, Wharton, Weatherly, Chaillie, Chappellier, Greenleaf, Prof. Riddell and his brother, and also Messrs Brenan and Gordon. While the large crocodile was being secured and made fast to the table, the two others, whose trachæ had been ligated, were moving about as actively as before the operation. Some doubted whether the ligation would kill them at all, and others were of the opinion that the exposure of the viscera and serous membranes of one of them, to the action of the air, would prevent the ligation from proving fatal, as oxygen would be absorbed and carbonic acid expelled by the tissues thus exposed. The experiment reported at page 394 of the 46 volume of this Journal, June 16, 1852, where an alligator, nearly dead, revived under the scalpel of the dissector, while the ligature was still around the trachea, had given rise to that opinion ; although it was subsequently demonstrated, by attempts at insufflation, that the lungs had been cut by the operator, thus giving egress to the poisonous carbonic acid and ingress to the vivifying oxygen ; still the erroneous impression was left on the minds of Dr. Dowler and others, that it was the exposure of the membranes to the air by the dissection which revived the animal. In the present case the viscera and membranes were as extensively exposed to the air as in that instance. I particularly guarded against cutting the lungs or any branches of the bronchial tubes. Both animals in less than an hour after the ligation of the trachea, were dead. The one whose viscera had been exposed, died as soon as the other. When pinching, burning and piercing the most sensitive parts of the body ceased to cause motion or to produce sensation, the first one operated on was replaced on the table, and the viscera of the thorax and abdomen exposed by dissection. An artery was accidentally cut, and a profuse hemorrhage was the consequence. The temperature of the room was 83°. The inflating process was then com-

menced, and some faint evidences of returning vitality manifested themselves; but as the reptile had lost the greater portion of the blood in its body, the very substance I wished to vivify and set in motion by the introduction of fresh air into the lungs, I abandoned the experiment, and removed the subject from the table without regret, intending to make it answer the purpose of another experiment to prove the error of certain reviewers, who had taken the position, "that alligators were curious animals, and might come to life of themselves if let alone." Hence the determination to let this one alone, to prove to sceptics that nothing short of the admission of fresh air into the lungs can restore life in cases of asphyxia or suspended animation. It never came to, or responded to the irritants applied to its nerves, but quickly lost every remaining vestige of life after the insufflation was suspended. Even the irritability of the muscles was destroyed; thus confirming the experiment reported at page 79 of the 47th volume of this Journal, August 26, 1852, where simple ligation of the trachea not only destroyed life, but muscular irritability, by poisoning the blood by the retention of carbonic acid.

The other crocodile, above mentioned, whose trachea had been tied at a quarter before 10 o'clock, and the viscera immediately exposed, was found to be dead, and at 25 minutes before 11 o'clock was replaced upon the table. Various means were used, as pinching, piercing and burning the most sensitive parts of the body, to extort symptoms of life, and when they failed to have any effect, the inflating process was commenced. After continuing insufflation of the lungs for some fifteen or twenty minutes, the animal came to life, snapped its jaws, opened its eyes, moved its limbs, and twisted and worked itself when pinched or cut. In the language of a by-stander, "*it lived again.*" It continued to live for several hours afterwards. It was brought to life at 11 o'clock. At 3 o'clock, when the company left for dinner, it was still alive, and would dodge the finger when thrust at its eyes, although not touched. Several gentlemen, before leaving, convinced themselves by that and other measures, that the reptile was not only alive, but had its sight, hearing, intelligence and the power of motion restored to it. When the company left it was the only live crocodile in the room. Both the others had been dead for some time. The first one operated on had been dead more than four hours, and the one which Dr. Dowler had been experimenting on was also dead, although it was the last one brought on the table.

On the 6th of June I tied the trachea of the female crocodile, about six and a half feet long, and as large around as a common-sized man—Drs. Dowler, Copes, Wharton, Chappellier, Reynolds, Greenleaf and Backee being present. When animation became nearly suspended, the viscera were exposed by dissection. On opening the pericardium, the auricle of the heart happened to be pierced. The hemorrhage was profuse. A ligature was put around the slit in the auricle, but before the hemorrhage could be arrested the most of the blood in the body had escaped. Insufflation was tried, but it had very little ostensive effect. It excited the heart into action, and re-

tored some degree of motion and sensibility ; but it restored and preserved an amount of vitality sufficient to enable Dr. Dowler, to whom I resigned the half-dead female saurian, to re-produce those astonishing phenomena of the nervous system, which he has heretofore made known to the scientific world. They are of a nature to make a Nilotic ruin, a perfect chaos, of the main foundation of physiology and psychology since the days of Moses. In the report of the experiment on the battle-ground crocodile, published August 25, 1852, in the 47th volume of this Journal, it is stated that after tying the trachea the animal died, and that Dr. Dowler, with fire, hooks and forceps, failed to produce a single nervous phenomenon he had been accustomed to show. But in this instance, a sufficient quantum of vitality remained and was kept up by the inflation, to enable him to verify to the by-standers nearly the whole of those remarkable facts he has heretofore reported in his "Contributions to Physiology." He proved with the half-dead reptile, as also with the ten-foot crocodile on the 1st of June, what he had frequently proved before, viz., that sensibility, motion, the will and intelligence, continue to be manifested in the body after it has been cut off from the brain and spinal marrow ; that pinching the distal portion of any divided nerve will cause motion and sensation in the part to which it is distributed, and that the same phenomena will continue to occur as the nerve is followed downward toward the part to which it is distributed. These experiments with the crocodile prove the fallacy of those dogmas, which have so long made physiology and psychology the most hypothetical, changeable and non-progressive of all the sciences. Until cut loose from the unsound learning of the dark ages, those noble sciences cannot be made to perform their proper part on the arena of practical utility. The hypotheses to which they are chained, make the cerebral system the *subjective or the me*, and the blood the *objective or the not me*. To reach the brain, the supposed seat of the subjectivity, recourse has been had to the supposition, that impressions from without are conveyed by a subtle fluid, oscillations or other means, through the nerves to the brain—the supposed exclusive residence of the mind. The latter is supposed to give its commands, which are conveyed by the same or another set of nerves to muscles and to the different organs of the body, ordering muscular motion to be performed and pain or pleasure to be felt. Another hypothesis pre-supposes that the chief motive power of the blood is derived from the mechanical propulsion effected by the contraction of a muscle, called the heart. There are more than three millions of species of animals destitute of such an organ, and even in the mammals the heart and arteries are of subsequent formation to some other structures of the body abundantly furnished with nutritive fluids. While such unsound doctrines (which need only be stated to carry their refutation upon their face) are received as fundamental truths in physiology and psychology, it will be vain to expect that these sciences can make any progress in the field of utility and practical operations. While such errors prevail, the phenomena attributed to

mesmerism, table-moving and spirit rapping, will continue to confound the wisdom of the learned, and to lead the ignorant and credulous into every species of ridiculous extravagance. Such is the natural tendency of the popular mind when men of science are driven to the subterfuge of denying phenomena clearly demonstrable—not for the want of evidence of their existence, but for the want of something in their philosophy to explain them. Back to Moses, then let young America, not too old or full of prejudice to learn new truths, go take a fresh start in physiology and psychology. Physiologists and psychologists will there learn, what the experiments on the crocodile prove, that the blood is the subjective or the me, and all other parts of the body are the objective or the not me; or, in the language of Moses, the blood is the life of the flesh and the air is the life of the blood. Life is the proper Hebrew sense of the term—life, consisting of motion, sensation, will, consciousness and intelligence; these are all implied by the Hebrew word translated life. Neither physicians nor theologians have fully believed in the physiological doctrines taught by Moses. Some of the former and all the latter profess to believe in the prophet, but not in the prophet's doctrines when applied to physiology. It is not as a prophet I quote him, but as a man and a learned physiologist. My experiments on the crocodile, as well as those of Dr. Dowler, show most clearly and positively, that, as far as regards the fundamental principles of the science of physiology, Moses is a great way ahead of either Carpenter or Dunglison. Dowler proves that the blood is the life of the flesh when he irritates a nerve, dissevered from the brain and spine, and produces the phenomena of life and motion in the part to which it is distributed. When the blood was previously poisoned by carbonic acid gas, as in the experiment with the battle-ground crocodile recorded in this Journal (page 79, vol. 47,) not a single symptom of life followed the irritation of the nerves or any other part. Muscular irritability had been destroyed by the carbonic acid destroying the life of the blood. Whereas in other experiments, where the blood had not thus been previously poisoned, or if poisoned, its vitality had been restored by insufflation, then the irritation of any nerve, after it had been divided or after the spine and brain had been destroyed, produced the phenomena of life in the parts to which it was distributed. The brain and nerves, therefore, instead of being the primary seat and type of life, are subordinate agents, or mere conductors of vitality from the fountain of life, the blood, to the flesh and solid structures of the body.

My experiments prove that the life of the blood is derived from the atmospheric air, and that the air alone, without aid from the heart at all, is its main and principal motive power. In other words, the oxidation of the blood in the lungs is the chief motive power; or, in the language of Mrs. Williard, "the chief motive power of the blood is derived from respiration." Whether caloric, as Mrs. Willard contends, or caloric and electricity combined, be the *Phaetonitis equi* of those cars of life, called blood corpuscles, is another question

lying in hypothetical regions I have no desire to explore. It is not the occult cause of things, but the existence of the things themselves I seek to prove. That there is such a thing as a *hæmatokinetic* or blood moving power, derived from respiration, is abundantly proved by artificial respiration restoring motion to the blood and bringing to life dead crocodiles.

That this hæmatokinetic or blood moving power can act beyond the periphery of the animal body, is sufficiently proved by those beautiful habitations which the mollusks build, paint and polish for themselves, without the aid of head or hands. Shells are nothing more than the things called mesmerism in the solid form. Their frame work consists of fibrin thrown off from the body of the animal, chinked or filled in with solid matter thrown out like the fibrin. The stumbling-block, to those educated in the doctrines of solidism and mechanical agencies, is that their philosophy will not admit them to attach ideas of life, motion, sensibility and intelligence, to any substance not provided with an apparatus to move by mechanical means, with nerves, brain, and organs especially designed for hearing, seeing, tasting, smelling and feeling. Yet the beaver and the snail have an additional sense, which has been called *hygrometric*, enabling them to foretell changes in the weather. No organ has ever been discovered through which such knowledge is communicated. There are millions and myriads of living creatures in the ocean, possessing one or more of the above-mentioned senses, and some of them sufficiently intelligent to be expert navigators; yet they are liquid masses having less consistency than the blood, being mere bubbles of jelly inflated with atmospheric air, and without any solid organization whatever. Even the membrane enclosing the radiaries is as foreign to their gelatinous bodies as the shell is to the crustacea. The light, seen in the ocean near the arctic circle and the equator, is emitted by myriads of animals, not only possessing life, sensation and intelligence, but motions as rapid as meteors. They are of less consistence than the blood; the slightest touch resolves them into thin air and unctuous liquid. They prove that life with all its essential attributes, does and can exist in the liquid and even in the æriform state.

The difficulty of believing the Mosaic physiology, that the blood is the life, and air the fountain of life to the blood, is not for the want of facts proving that substances less dense possess life, but is owing to the prejudices of education founded on too narrow a platform. The platform of Harvey, that the chief motive power of the blood is derived from a muscular organ, excludes the larger half of the animal creation. Fishes have no aortic heart to circulate the blood. They have a small, weak muscular organ to assist in propelling the blood into the gills, but they have no heart to propel it through the systemic circulation. The oxygenation of the blood in the gills is a sufficient motive power. In the sturgeon the arteries are cartilaginous tubes, and can give the hæmatokinetic power, derived from the oxygenation of the blood in the gills, no assistance. The heart of the fœtus in utero does not beat time with that of the mother, nor

are the blood corpuscles of the same size in the mother and her unborn child ; proving that it is not the same blood, and is not circulated by the same forces, as the theory of Harvey supposes. The law which gives the motive power to the blood of fishes—the oxidation of the blood in the gills—gives the motive power to the foetal blood ; the placenta performing for the foetus the same office the gills do for fishes. The foetus in utero is, physiologically speaking, *a tadpole*, the placenta being its branchiae or gills. When comparative anatomy is more studied, the radical error of the received doctrines of the circulation will become more apparent.

Dowler and the mesmerizers (I fear he will never pardon me for the association) have done much to expose the errors of the schools on the nervous system. The former has demonstrated repeatedly that the phenomena of sensation, voluntary motions, the will, the passions, and some degree of intelligence, can be reproduced in animals deprived of the brain and spinal marrow. Both have proved that the mind is not a prisoner in the bone called the cranium, as the learned would believe. My experiments prove that the blood, instead of being a lifeless mass, moved only as it is moved by physical forces, is highly vital, and derives from the oxygen of the air, not only its life, but a haematokinetic or motive power more active than that which the needle derives from the load-stone ; that the motive power thus generated, is not dependent on vascular organization or any organization at all for its manifestations, as is proved by the Articulata and Radiata, and that it can carry the vital blood beyond the immediate periphery of the vascular system, as is proved by the fibrous frame-work in the shells of the Mollusca.—*Boston Medical and Surgical Journal*.

DEPARTMENT OF CHEMISTRY AND PHARMACY.

The following letter from Messrs. Rosengarten & Denis, manufacturing chemists of Philadelphia, was received too late for insertion in the July No. of this Journal. It gives us pleasure now to lay it before our readers, and to commend its perusal to them. It has reference to the analysis of a sample of their quinine made by us some months ago, and which we reported in the paper presented at the May meeting of the Tennessee Medical Society. A statement of the following facts may not be amiss in vindication of our course, while at the same time, it will also be proper to relieve Messrs. R. & D. of any imputation that may rest upon them in consequence of our analysis :

When we commenced the drug business in December, 1851, we purchased a lot of quinine from a highly respectable Boston house, bearing the brand of Rosengarten & Denis. In the winter of 1852, having received the appointment from the Tennessee Medical Society, as Chairman of the Committee on the Adulteration of Drugs, Medicines, &c, we undertook the analytical examination of many of the more valuable chemicals found in our establishment, obtaining others also from the druggists in the city. Among them were the two samples of quinine alluded to in our report. The samples analyzed were taken from newly opened jars, one with the label of R. & D., being the last ounce left of the lot purchased in 1851. Having given to the analysis repeated trials, and finding them just as reported, the ounce vial labelled R. & D. was again tightly secured and placed aside for future examination. But our supply of that chemical running short, and one of our assistants finding this jar, and not knowing for what purpose it had been placed away, removed it to the dispensing counter, and it was disposed of before we were aware of the fact. A few weeks after this occurrence, one of the physicians at St. Mary's Hospital in this city, directed my attention to an ounce

of quinine in the dispensary of the Hospital, the purity of which, from its great inefficacy, he was led to suspect, requesting that we should make an analysis of it. We immediately called for it, but unfortunately it had all been dispensed, notwithstanding, as remarked the nurse, it had, in no instance, manifested the least anti-febrifuge properties, though administered in large and repeated doses. On enquiry and examination, we found it to be one of the vials belonging to the lot purchased by us in 1851.

Again we state that, although we remember that it was remarked to us by one or two of our medical customers during the summer, that the quinine sold them failed in its effects, we did not suspect its purity until the analysis was made. It was then too late in the day to inform the house from which we purchased of the fact. And we furthermore state, although it shows our inexperience in the drug business, that, until the reception of their letter, we labored under the impression that Messrs. R. & D. were foreign manufacturers. Had we known to the contrary, we unhesitatingly say, that we would have forthwith forwarded to them the jar and its contents, for their inspection. These gentlemen state that they have, of late years, used the metallic caps for their vials. If our memory serves us right, and we do not think we are mistaken, part of the lot, if not the whole, had red sealing wax caps, with the initials R. & D. stamped in the centre. But again. We have had a sample of quinine under analysis, which we knew to be a genuine article, from the house of Messrs. R. & D., and we are satisfied of its entire purity. But, though tested with the same tests, and by the same methods, it was different from the sample previously analyzed. We have also examined a sample of the manufacture of Howard & Kent, London, and find it pure also ; and the same with another sample from a new lot of Powers & Weightman. In the Memphis Medical Recorder, for July, we find an extract from a letter to Messrs. Booth & Guthrie, of Memphis, from Messrs. Rosengarten & Denis, which will not be inappropriately placed in this connection :

“ We have lately examined several brands of quinine, and find there is but little real quinine in them : it is mostly quinidine and cinchonine. Whether these salts act as well as quinine, is totally out of our power to know, but we hope our physicians will soon ascertain. If you have any opportunity to know the effects of these so-called quinines, do oblige us by letting us know. It will be totally impossible to compete, as we use none but best calisaya, which is getting very scarce.”

We have felt it due to ourself to say thus much in justification of

our course, as well as in justice to Messrs. R. & D., to relieve them of any imputation that our former remarks may attach to them. But what shall we say to our medical customers, who have had their skill baffled and their expectations thwarted—and what to the suffering invalid, whose disease has been prolonged and probably assumed a serious aspect, from the inefficacy of that quinine, supposing the whole lot was of the character of that analyzed? Our regrets that we were made the unwilling instrument for its distribution, cannot make amends for any evil done. We can only submit the matter to them.

But to the letter of Messrs. R. & D. in vindication of themselves :

PHILADELPHIA, June 21, 1853.

DR. R. O. CURREY.

Dear Sir :—Your favor of the 11th is this day to hand. We regret you had none of the sample of quinine you analyzed left, to send us, and, at the same time, do not think it just on your part, that, in a comparative trial of different makes of quinine before a meeting of the profession, you should use a bottle bought in 1851, and perhaps at that time sold to you by an irresponsible party, who may have procured it at half price, instead of procuring a vial from an undoubted source. We stand in relation with Messrs. Booth & Guthrie,[†] Memphis, and in Louisville with Messrs. Wilson, Starbird & Smith, J. B. Wilder & Co., Robinson & Cary, etc. From any of these houses you could have procured our articles in their pure state, as they leave our establishment.

Several years ago, a party in New York made it a regular business to open our and Pelletier's vials, and substitute one half or more mannite for quinine in them. We succeeded in tracing the person who did so, and commenced a prosecution, which was not carried through on account of the inefficiency of the law of the State of New York, although the proofs were conclusive. We have, however, reason to believe, that the guilty party heard of it at the time, and to the best of our knowledge has not, since then, adulterated our brand. We have, also, ever since, used the metallic caps, instead of sealing wax, which, in some measure, may serve as a protection. Neither our quinine nor morphines can be excelled in purity, and we can refer with confidence, as well to our competitors as to a number of the best, and intelligent apothecaries and druggists in the United States.

As you make it appear, in your original statement, that you took a vial per chance, and not previously suspected, the effects on public

opinion must prove injurious to our reputation with parties who do not know us, and we consider it but just that you should state the circumstances and the time you purchased it—in fact, clear us of any imputation. We have no doubt you will comply with this to our satisfaction. Our articles are before the public, and we invite the strictest scrutiny as their virtue.

You will oblige us by inserting the above, in connection with your intended remarks, in the next Journal.

Yours, very respectfully,

ROSENGARTEN & DENIS

ART. LXXX.—CHEMICAL ANALYSIS.

Besides the physical characters of our medicinal agents, there is another no less important, yet more overlooked, on account of the supposed difficulty attending its application. Many of these agents possess no other than those external or physical characters by which their quality can be ascertained, yet others, and the larger and more valuable class, possess both physical and chemical, or external and internal characters, affording full evidence of their purity or impurity. The purity of many of our chemicals again can only be ascertained by an examination of them chemically or internally ; and yet as important as this may be, how many of our druggists and physicians are prepared by a previous course of study to enter upon the investigation of the simplest of the chemical compounds, which, by them, are dispensed to suffering humanity. The patient relies upon the physician, and holds him responsible for the purity of the medicine he administers. The physician looks to his druggist or apothecary as his voucher. The druggist looks to his Eastern house, or to the manufacturer, or to the importer ; and these again rely confidently upon the honesty of all those through whose hands their manufactured products pass, for preserving their character inviolate, and their purity uncontaminated. But what is the result ? The faithful manufacturer at home and abroad fills the order of one who adroitly opens and basely adulterates in such a manner as to escape detection by the eye the pure chemicals unsuspectingly furnished him.

The druggist or apothecary receives a lot after it has passed into the current of trade, and the last of it is, the patient swallows what

will do him no good, or perhaps a direct injury, or indirect by the delay occasioned. What remedy is there for this? No druggist should pretend to sell, no physician should pretend to administer any medicine, he cannot himself say, is, without doubt, pure and genuine. To secure this desirable state of things, our druggists should be educated for the business, not merely by learning the routine of the debit and credit part of the business, but its scientific part. It is as necessary for him to understand Botany, Chemistry, Mineralogy and Pharmacy, as it is for the physician; and who will doubt, for a moment, the necessity of the thorough educational training of the latter.

Thus much for a preface to the following notes from our Chemical Note Book, and which will be continued in our next.

Calced Magnesia.—Of three samples tested with dilute solution of citric acid, not one failed in producing a brisk effervescence. A can of Irish calcined magnesia, recently opened, gave as pure an article as has come under our observation. The effervescence with weak acids indicate the presence of carbonate of magnesia.

Oxide of Silver.—In another part of our Journal an article may be found on the adulteration of this chemical with carbonic acid and other substances: an article bearing the well known initials of F. P. & W., (Farr, Powers & Weightman,) has been carefully tested by us, and gave as the result a pure oxide of silver; when treated with the liquor of Ammonia it dissolved entirely, and subsequently formed beautiful crystals of pure silver.

Calomel.—We stated in one of our former numbers, that we had tested three samples of this chemical, which gave indications of the presence of the bichloride. We have recently tested seven other samples, two of which were Farr's, or rather their successors, Powers & Weightman, one from a genuine Mander bottle, another from an old open bottle, and the others we did not examine the brands. The result was, that of the seven samples, only two gave indications of impurity; in one there being a residuum after volatilization, and in the other indications of the bichloride being afforded by liquor Ammonia. The two samples of Farr's and the Mander sample afforded perfectly pure results. The indications of the bichloride was given by the sample taken from the open bottle, and one of the unknown brands gave the residuum. Our mode of proceeding was as follows:

1st. Portions of each sample were placed in a small crucible and gradually subjected to the heat of a spirit lamp. If it is completely vaporized, evidence is afforded of its purity. If a residuum was left,

its character can be ascertained by the various tests for detecting chalk, gypsum, heavy spar, &c.

2nd. Other portions were separately digested in distilled water over a water bath, kept as uniformly as possible at a temperature of 90°. After occasional agitations, and being digested for several hours, the clear supernatant liquid was decanted and filtered and subjected to the action of the following tests: Lime water, Caustic Potash, Iodide of Potassium, Ammonia, Hydrosulphuret of Ammonia and Nitrate of Silver.

3rd. Other portions were again agitated in ether several times, the clear supernatant ether decanted and filtered, and allowed to evaporate spontaneously. A small portion of distilled water was added to each and tested with the same results. The relative delicacy of these and other tests is thus stated by Devergie and confirmed by Christison:

Ferrocyanide of Potassium detects the	1,500th part if present.
Lime water	4,000th
Caustic Potash	7,000th
Iodide of Potassium	8,000th
Ammonia	36,000th
Hydrosulphuret of Ammonia	60,000th.

R. O. C.

ART. LXXXI.—CIRCULAR OF INSTRUCTIONS TO SPECIAL EXAMINERS OF DRUGS.

“TO PREVENT THE IMPORTATION OF ADULTERATED DRUGS AND MEDICINES.
To Collectors and other Officers of the Customs,
under the act of 26th June, 1848.

TREASURY DEPARTMENT, June 4, 1853.

“It being represented to this Department that such embarrassment has been experienced by officers of the customs, at some of the ports of the United States, in reference to the provisions of the act of 26th June, 1848, “to prevent the importation of adulterated and spurious drugs and medicines,” it is deemed expedient, with a view to avoid future difficulties arising from misconstruction of the law, and to secure uniformity of practice at the several ports in carrying out its provisions with precision and efficiency, to furnish you with the additional instructions which follow, explanatory and in modification of the circular instructions addressed to you by the department on the 7th July, 1848.

"To avoid the recurrence of a difference of opinion between the officers of the customs as to what particular articles of commerce should be considered drugs and medicines, and as such, subject to special examination by the special examiner of drugs and medicines, it is thought proper to state that in conformity with the evident spirit and intent of the law, it is required that all articles of merchandize used wholly or in part as medicine, and found described as such in the standard works specially referred to in the act, must be considered drugs and medicines, and that all invoices, therefore, of such articles, in whole or in part, must be submitted to the special examination of the special examiner of drugs and medicines, before they can be permitted to pass the custom house.

"In the examination on entry of any medicinal preparation, the said special examiner is to unite with the appraiser.

"With a view to afford a reliable guide to the examiner of drugs and medicines, as well as to the analytical chemist, on appeal, in ascertaining the admissibility of such articles under the provision of the law founded on their purity and strength, the following list is given of some of the principal articles, with the result of special tests agreeing with the standard referred to in the law, all of which articles are to be entitled to entry when ascertained by analysis to be composed as noted, viz:

"Aloes, when affording 80 per cent. of pure aloetic extractive.

"Assafoetida, when affording 50 per cent. of its peculiar bitter resin, and 3 per cent. of volatile oil.

"Cinchona Bark, when affording one per cent. of pure quinine, whether called Peruvian, Calisaya, Arica, Carthagena, Maracaibo, Santa Martha, Bogota, or under whatever name, or from whatever place; or

"Cinchona Bark, when affording 2 per cent. of the several alkaloids combined, as quinine, cinchonine, quinidine, aricine, &c., the bark of such strength being admissible as safe and proper for medicine and useful for chemical manufacturing purposes.

Benzoin, when affording 80 per cent. of resin, or

" " 12 " of benzoic acid.

Colocynth, " 12 " of colocynthin.

Elaterium, " 30 " of Elaterin.

Galbanum, when affording 60 " of resin.

" " 10 " of gum and

" " 6 " of volatile oil.

Gamboge, " 70 " of pure gamboge resin, and

" " 20 " of gum,

Guaiacum, " 80 " of pure guaiac resin.

Gum ammoniac " 70 " of resin and

" " 18 " of gum.

Jalap, when affording 11 per cent. of pure jalap resin, whether in root or in powder.

Manna, when affording	37 per cent.	of pure mannite.
Myrrh, " "	30 "	of pure myrrh resin, and
" " "	50 "	of gum.
Opium, " "	9 "	of pure morphine.
Rhubarb, " "	40 "	of soluble matter, whether in
root or powder ; none admissible but the articles known as East		
India, and Turkey, or Russian rhubarb.		
Sagapenum, 50 per cent.	of resin.	
" " "	30 per cent. of gum, and	
Sagapenum 2 per cent.	of volatile oil.	
Scammony, 70 per cent.	of pure scammony resin.	
Senna, 28 per cent.	of soluble matter.	

"All medicinal leaves, flowers, barks, roots, extracts, &c., not herein specified, must be, when imported, in perfect condition, and of as recent collection and preparation as practicable.

"All pharmaceutical and chemical preparations whether chrystalized or otherwise, used in medicine, must be found, on examination, to be pure and of proper consistence and strength, as well as of perfect manufacture, conformably with the formulas contained in the standard authorities named in the act ; and must in no instance contain over three per cent. of excess of moisture or water of chrystallization.

"Essential or volatile oils, as well as expressed oils, used in medicine, must be pure, and conform to the standards of specific gravity noted and declared in the dispensatories mentioned in the act.

"'Patent or secret medicines' are by law subject to the same examination, and disposition after examination, as other medical preparations, and cannot be permitted to pass the Custom House for consumption, but must be rejected and condemned, unless the special examiner be satisfied, after due investigation, that they are fit and safe to be used for medicinal purposes.

"The appeal from the report of the special examiner of drugs and medicines, provided for in the act, must be made by the owner or consignee within ten days after the said report ; and in case of such appeal, the analysis made by the analytical chemist is expected to be full and in detail, setting forth clearly and accurately, the name, quantity, and quality of the several component parts of the article in question ; to be reported to the collector under oath or affirmation.

"On such report being made, a copy of the same will be immediately furnished by the collector to the special examiner of drugs and medicines, who, if the report be in conflict with his return made to the collector, and he have cause to believe that the appeal and analytical examination have not been conducted in strict conformity with the law, may enter his protest in writing against the reception and adoption by the collector of such report and analysis, until a reasonable time be allowed for the preparation of his views in the case, and their submission to this department for its consideration.

JAMES GUTHRIE,
Secretary of the Treasury."

ART. LXXXII.—ON QUINIDINE.

By EDWARD N. KENT.

It has been recently asserted by M. Henry that Quinidine is merely a hydrate of quinine, or quinine plus 2 atoms of water. This statement has been considered erroneous by other chemists, but no facts have been elicited which prove it to be so. From my own experiments on this subject, I am inclined to believe that the two alkaloids are entirely dissimilar in their chemical composition.

Sulphate of quinine, dissolved in an aqueous solution of chlorine and a few drops of ammonia added, furnishes a deep green color characteristic of quinine. Sulphate of quinidine treated in the same manner, remains colorless if free from quinine.

Sulphate of quinine dissolved in acetic acid, a few drops of tincture of Iodine added, the mixture heated and allowed to cool, furnishes a beautiful emerald green crystalline compound, called sulphate of iodo-quinine by Dr. Herepath, its discoverer. Sulphate of quinidine, treated in the same manner, furnishes a *brown* precipitate.

The sulphate of quinine used for the above experiments, was prepared by re-crystallizing the commercial salt. The sulphate of quinidine was prepared from a sample of pure quinidine received from C. Zimmer, Frankfort-on-the-Maine. The first being a di-sulphate, and the second a neutral salt. The reaction with chlorine and ammonia being entirely independent of the acid or water of hydration, this test alone is sufficient to prove that quinidine is a hydrate of quinine.—*N. Y. Jour. Pharmacy, May, 1853.*

ART. LXXXIII.—ON THE SUBSTITUTION OF THE CARBONATE FOR THE OXIDE OF SILVER IN COMMERCE.

By Mr. JOHN BORLAND.

At the present time, when attention is so properly directed to the detection and exposure of adulterations and impurities in many substances used in dietetics and medicine, I beg to be allowed to draw attention to the existence of a fraud which appears to me to be very generally practiced with a medicine that is now come into extensive use as a tonic in dyspepsia and other complaints of the digestive organs. I allude to the substitution of carbonate of silver for oxide of silver.

I have carefully examined several specimens, all purchased from different respectable wholesale druggists in London, and have found that each of them, besides being contaminated with the oxides of

copper, lead and iron, contained a large portion of carbonic acid, and effervesced strongly when thrown into diluted nitric acid.

As none of the specimens were wholly soluble in liquor of ammonia, but contained a considerable quantity of some substance insoluble in this menstruum, I was lead to suppose that the evolution of the carbonic acid might be due to the presence of some earthy or alkaline carbonate that had been added by way of adulteration. This, however, after close examination, I found not to be the case, so that the effervescence could not be accounted for in any other way than supposing the carbonic acid to be combined with the oxide of silver.

That it was carbonic acid, I satisfied myself by holding a watch glass moistened with lime water above the effervescing solution, when a thin whitish film of carbonate of lime was visibly and quickly formed. I also passed the acid into a solution of pure caustic potass, and on afterwards testing the solution, found it to contain *carbonate* of potass.

In the preparation of this sophisticated article, the manufacturer, I suspect, has employed a solution of the carbonate of some one of the fixed alkalies, in place of its caustic solution, to precipitate the oxide of silver.

The product yielded by this process is consequently greater, as it contains the additional weight of the carbonic acid with which it is combined—a sum which is easily calculated if we consider how much the equivalent weight of the carbonate of silver, which is 138, exceeds that of the oxide, which is 116.

The manufacturer who disposes of this at the price of the pure oxide, is thus enabled to realize, besides the legitimate profit due to him as a maker of the article, an *additional profit* of a sum equal to the commercial value of about $2\frac{1}{2}$ ozs. of oxide of silver on every 16 ozs. that he sells.

This pecuniary view of the subject should, however, be only of very secondary importance to the dispensing chemist, whose duty it is *not* to pry into the profits of the manufacturer, but above all, to endeavor to serve his customers with a genuine article, and to carry out the intentions and wishes of the physician who may prescribe for them. Neither of these objects are effected by the dispensing of this or any other adulterated medicine.

In illustration of the difference between the two substances, I shall suppose that a patient receives from his physician a prescription for one dozen pills, each of which is to contain one grain of oxide of silver. The prescription is, with all confidence, placed in the hands of the chemist, to be carefully and properly made up, and the chemist, either through the cupidity and dishonesty of himself or the manufacturer, or it may be through his own ignorance of, and inattention to the quality of the article supplied to him, in this case, by using the carbonate, makes up the pills with only ten grains of oxide of silver in place of twelve grains.

This difference, it may be said, is not great, but whether it be trifling and insignificant or not, it is no extenuation or palliation of

the culpability attending the substitution of one medicine for another.

The chemist who is coolly indifferent as to whether or not he sells a genuine or an adulterated article, will, with equal levity of feeling, be careless whether the impure medicine be one that is potent in its effects, or one that is capable of producing little or no appreciable influence on the living organism.

The process of qualitative analysis which I pursued for detecting the presence of the oxide of copper, lead and iron, has nothing of novelty in it, and therefore need not be described. I may, however, remark that from several experiments which I made, I have reason to think that the carbonate of silver contains a small quantity of water, it may be from not having been properly dried after being washed, or from its being combined with it constitutionally as a *hydrate*.

This additional impurity, together with those already referred to, makes the difference between the oxide and carbonate greater than it really appears to be from a mere comparison of their respective equivalent weights.—*Pharm. Jour.* May 1, 1853.

Formula for a Castor Oil Electuary—by SEPTIMUS PIESSE—Many persons' stomachs revolt at taking castor oil in an undisguised form. To overcome this repugnance, it has been the practice to administer it in the shape of an emulsion, which involves a large increase in the bulk of the dose to be taken, as well as the employment of a considerable quantity of gum or the yolk of an egg, to form the emulsion. To disguise the castor oil, to give it in a condensed form, and to diminish, as much as possible, the quantity of the excipient, the following formula has been devised :

Take of Castor oil,	- - - - -	3 ounces,
White soft soap,	- - - - -	1 drachm,
Simple syrup,	- - - - -	1 drachm,
Oil of cinnamon,	- - - - -	6 drops.

Rub the soap with the simple syrup in a mortar, and then add gradually the castor oil, with constant trituration, until it is thoroughly incorporated with the above ingredients. Finally, mix with the electuary thus formed, the oil of cinnamon, or any other essential oil that may be preferred. By these means a gelatinous electuary will be formed, which is rather palatable than otherwise, and nearly equals, bulk for bulk, castor oil in strength. The quantity of potash present in a dose of this electuary is only a homœopathic dose, and consequently not likely to produce a bad result in any case, even when its use should be contraindicated.—*Annals of Pharmacy.*

DEPARTMENT OF DENTAL SURGERY.

ART. LXXXIV.—REPAIR AND REPRODUCTION IN THE MAXILLARY BONES.

The capacity of the living organism which enables it to maintain the integrity of its parts, and to make reparation for the injury or loss its tissues may sustain through accident or disease, constitutes an exceedingly interesting feature in physiology. To see this power manifest itself in the process of simple nutrition, or at work in the repair of lesions, cementing divided parts, filling up chasms, and making restoration for entire loss of substance in the soft textures—or busy upon dense, osseous structure, welding together the shattered ends of fractured bone, building up breaches, and reconstructing portions of the bony fabric that have been destroyed and removed—enlists our curiosity and challenges our admiration. There is nothing better calculated to impress the mind with a sense of the energy of this recuperative power, than instances of reproduction of a considerable portion of bone throughout its entire thickness, where nature, “steady to her purpose,” flags not, wearies not, rests not, but toils on, until she accomplishes her end—the renewal of the lost portion, or rather, the *creation* of a new part, after the pattern of the old, bearing its characters and endowed with its functions.

The regeneration of bone has received a large share of the attention of physiologists and surgeons ; more especially in view of the question as to what is the true or essential formative organ in the process. In regard to this question there now seems to be a pretty general concurrence of opinion, although some difference exists upon certain points. We believe it is generally conceded that the living portion of the old bone, and each of its membranes, bear a part in the formation of the new ; that *periosteal structure* is the principal, or most efficient agent ; but, that in absence of the true periosteum, the surrounding soft structures may assume its character and function. It would be interesting to trace the steps of this process, with the varying phenomena described by observers as attending it under

different conditions, but our present object was merely to speak of some of its *results* as manifested in the maxillary bones.

That the maxillary bones possess the capacity of repair and reproduction, might be readily inferred from their character as compared with the other bones, in which, (the short bones excepted,) this power so frequently manifests itself. When fractured, their reunion, (which is but a modified action of the same power,) is accomplished with facility—in the lower jaw with remarkable facility, considering the almost impossibility of keeping it in a state of repose. The motions of the lower jaw, however, interfere greatly with the work of reparation, and, without doubt, often frustrate it when it had else gone on to completion; especially in cases of entire loss of the jaw, or of a considerable segment of it, where the malposition of the soft parts, added to the action of the muscles, would seem to present a most formidable obstacle to any thing like perfect reproduction.

It appears, furthermore, that certain diseases or agencies, producing necrosis in the maxillary bones, destroy the periosteum, or impair its bone-producing function, while at the same time implicating the surrounding textures so as to prevent their assuming periosteal characters and action. But these exceptions and conditions are but similar to what might occur with respect to other bones, nor do they indicate any want of formative capacity. And that this capacity is resident in the bones of the jaw, and may here manifest itself as well as in parts more favorably situated, is placed beyond doubt by the cases which have, from time to time, come under the notice of observers. *

* We have, however, recently seen it stated that the maxilla do not possess the reproducing power. As this statement comes from one whose prominence, both as a Teacher and Author, in our specialty, claims attention for his remarks, we will quote them in full, although some of them would appear to be based upon a misapprehension of the authorities referred to.

"Necrosis of the Superior and Inferior Maxilla.—There is a very curious fact that appears to remain unnoticed as far as our observation extends, viz: that in all of the bones of the trunk, limbs, &c., suffering under caries and necrosis, nature makes a constant effort to recuperate by granulation and fresh deposition, but with the maxilla there is no evidence of their possessing this power in the slightest degree, partaking, as it were, of the character of the teeth in this respect. * The lower jaw in young persons, occasionally perishes

* "There is a case recorded in the *Chirurgical Journal*, vol. ii, of the reproduction of the whole ramus of the jaw with its condyles and coronoid process, after the operation of extraction had been performed by Desault. If this be well authenticated, it is an isolated case, and has no bearing upon the general law, as it is generally admitted that the periosteum of a bone is the reproductive agent; in such a case, this tissue must have been wholly destroyed, together with a great deterioration of the surrounding tissues."

The alveolar process is not ordinarily reproduced in cases of complete exfoliation. Its margins, also, are subject to waste from pressure and exposure, without renewal. Indeed, this structure appears designed to answer a purpose merely subsidiary to that of the teeth—growing with them and wasting away when they are removed—and in most cases, when *it* is lost, *they* are lost with it, so that there is no need for reproduction. As an articulating medium between the teeth and the jaw-bone, it is similar in *function* to articular cartilage, the loss of which is not restored, but compensated for by the development of a dense, fibrous texture, or by a peculiar osseous formation taking place upon the bone.

But the alveolus bears the characters of true bone, and is in reality nothing more or less than the dental portion of the maxillary bone, differing from this mainly in answering a specific purpose. Where a tooth has been extracted, the margins of the alveoli are absorbed and levelled off, without renewal, but at the same time, an ossific deposit or formation is going on at the bottom; so that, while there is waste on the one hand, there is generation on the other, the loss without being compensated for by an acquisition within—a process similar to that which removes the projections, fills up the depressions, and rounds off the jagged stump of a bone. Reparation of alveolar fracture, whether limited or extending through the denser bone, goes on in the usual way, the union being as speedy and perfect as elsewhere. In cases of third dentition, when the new teeth are found

without any previous derangement of health, local injury, or other apparent cause, its death preceded only by an aching in the bone, but such cases occur almost invariably in early life, from the age of four to twenty years. There is sometimes found after death of the jaw from necrosis, a deposition around the bone resembling, to a great extent, calculi, and which Stanley describes as a grey, pumice-like, osseous substance, deposited from the inflamed periosteum, and he regards it as a morbid product from a diseased tissue, being wholly disorganized matter. Dr. Heyfelder, of Berlin, published a series of very interesting cases of necrosis, occurring from the inhalation of *phosphorous acid vapor*, given off in factories for lucifer matches, affecting either or both jaws, depending upon the condition of the general health, and corroborating the above opinion that the loss of these bones is never followed by the slightest reproduction. It is stated that necrosis of the jaws is most frequently caused from the use of calomel, administered in fevers, and from severe inflammation of the gums from carious, dead or injured teeth, or from a large accumulation of tartar."—*Prof. Harris, in the Am. Journal of Dental Science, for October, 1852.*

Professor Harris also states that "in the alveoli the loss of substance by necrosis and exfoliation is never replaced, while in other bones it is soon replaced by the formation of new bone."—(*Principles and Practice of Dental Surgery.*) So that, according to the views of this author, the maxillary bones are incapable of regeneration either in whole or in part.

firmly implanted, we must suppose, with Hunter, that the alveolus was produced synchronously with the development of the teeth. That regeneration does not ordinarily occur when portions of the alveolus exfoliate, though the teeth be unaffected by it, is readily accounted for in the fact that there is seldom enough integument, either for the protection of the part, or for the production of a formative organ; the *nidus* does not exist; the soft parts being often wholly removed by violence, sloughing or retraction, from the very spot where the new formation should take place. But, covered by healthy integument, (supposing the teeth remain *in situ*,) there is reason to believe that repair would take place here as well as in any other part of the bone.

We will now adduce some instances illustrative of the reparative and reproducing power of the maxilla. Although various medical authors have, from time to time recorded cases,* we shall only allude to such as we have come across in works upon Dental Science, and to some of those furnished by modern observers, which we find in the publications of the day, but which have not, as yet, found a place in the "archives" of Surgery. [In the abstracts the language of the authors will be preserved as far as consistent with the space in which our limits compel us to condense them. When the precise words are employed they are properly quoted. The source is referred to at the end of the paragraphs.]

Among the writers on Dental Surgery, Jourdain presents, in his sententious way, a great many cases of necrosis and exfoliation of the jaws, especially the lower, resulting in "cure;" but however "complete" or "perfect" the cure, he usually dismisses his cases, at short notice, upon the removal of the sequestra. "After separation of the dead bone, nature generally works a prompt cure;"—not stopping to tell us whether the "cure" consists in restoration of lost bone or not. He quotes from Baierus the following:

"A miller approaching too near the arms of his wind-mill, was caught up by the sleeve and had his arm dislocated at the shoulder, his clavicle broken, and in some singular way, the anterior half of one side of the lower jaw completely torn away, with the investing flesh and integument. By perfect repose, and the use of poultices, we aided nature in the almost unhopd for cure of this horrible accident.

* In *Cooper's Surgical Dictionary*, article *Necrosis*, the following authors are enumerated as speaking of the regeneration of either a part or the whole of the inferior maxillary bone, viz: Bonetus, Bayer, Guernery, Belman, Arc-rel, Van Wy, Triven, Borm, Reiplein, Desault, Henkle, Dussaussoir and Wiedman.

A callus was formed, replacing the lost bone, and the soft tissues were renewed, except near the angle of the mouth."—*Surgical Diseases of the Mouth*, vol. 2, chap. 4.

In cases of third dentition, the teeth are, most frequently, without proper fangs, being simply adherent to the gums; but where the fangs are developed it would appear that the alveoli are reproduced. In *Harris's Dental Surgery* is a quotation from *Good's Study of Medicine*, which says, "In one instance, though never more than one, Mr. Hunter witnessed the reproduction of a complete set in both jaws, apparently with renewal of their sockets. 'From which circumstance,' says he, 'and another that sometimes happens to women of this age, it would appear that there is some effort to renew the body at that time.'" * Dr. Good, in the same connection, mentions two cases of renewal of entire sets of teeth in both jaws. Frequent cases of a third, and even a fourth dentition, from a single tooth to a complete set, have been recorded, some of which were found perfectly developed and firmly sustained, so that the sockets must have been reproduced.

Mr. Fox gives the case of a patient in Guy's Hospital, "who applied for advice on account of a great disease of the mouth, as a consequence of a late salivation," in which nearly the whole of the lower jaw became necrosed and exfoliated. "It was surprising," he says, "to observe how small a deformity attended the loss of so great a part of the jaw. During the progress of the exfoliation, so large a deposit of new bone took place, around the dead portion, that it became, as it were, enclosed in a case; and, after it came away, the new bone was rounded, and the gums healed over perfectly."—*Diseases of the Teeth*, (3rd London edition, p. 117.)

The following case of fracture, from *Braithwaite's Retrospect*, July '44 to Jan. '45, "shows how severely the jaw may be injured without ultimate destruction: the connection with the soft parts was so slight

* If John Hunter "witnessed" this case, it certainly must have appeared so from some other than his own showing in the connection in which he records it. His own language is:

"It sometimes happens that a third set of teeth appears in very old people; when this does happen, it is in a very irregular manner, sometimes only one, at other times more, and now and then a complete set comes in both jaws. I never saw an instance of this kind but once, and there two fore teeth shot up in the lower jaw."—[Instead of a complete set in both jaws!—He continues:]

"I should suppose that a new alveolar process must be formed in such cases, in the same manner as in the production of the first and second sets of teeth. From what I can learn, the age at which this happens is generally about seventy. From this circumstance, and another that sometimes happens to women at this age, it would appear that there is some effort in nature to renew the body at that period."—*Natural History of the Teeth*.

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that the fragment dangled loose in the mouth, and had not the friends refused their consent, it would have been removed.”—(*Braithwaite..*)

A man aged forty-six, was struck by a stone which made a wound three quarters of an inch in length, through the upper lip, and “fractured and detached, with the exception of slight soft connections, nearly an inch in each direction of that part of the alveolar arch of the superior maxilla into which the *dens cuspidatus* teeth are inserted.” So it remained several days. The fragment was then adjusted and attached to the adjoining teeth by small wires, and supported by pressure of the lower teeth upon the upper. “The fragment soon united and the patient was dismissed with very little deformity.”—(*Medical Gazette, July, 1844.*)

An instance of repair, from a similar injury, is related by Dr. Harris. A lady had “all that portion of the lower jaw, which contained the six anterior teeth,” splintered off and only retained by the gums and integuments; and yet by adjusting the detached portion and securing it by a ligature, she recovered perfectly in five or six weeks.—*Principles Dental Surgery*, p. 317.

Mr. Tomes, of England, in a course of lectures at the Middlesex Hospital, 1845-46, recently republished, describes two interesting cases of necrosis, followed by reproduction of the lost portions of the jaw, and apparently of the alveoli also. In the first case, reported by Mr. Sharp, in the *Transactions* of the Medico-Chirurgical Society, “the teeth,” says Mr. Tomes, “were loosened by necrosis of the jaw, but afterwards became quite firm and useful, and, as it would seem, by the formation of the new alveoli.”

A female, aged 20, consulted Mr. Sharp, September, 1842, “for an extensive necrosis of the lower jaw, with ulceration of the integument under the chin,” caused by a fungus growth at the fang of a decayed tooth. A large extent of bone was denuded though firmly attached. December 13. The Dead bone having now become detached from the living, was extracted. “The portion removed,” says Mr. Sharp, “amounted to about two-thirds of the entire lower jaw, and contained several of the alveolar processes. * * * I found the entire set of excellent teeth, (with the single exception of the one I had extracted,) perfectly fast and in their proper places.” January 5, 1843, the wound was nearly healed, and the face had recovered its natural appearance.—*Transactions Medico-Chirurg. Soc. via Tome's Lectures &c.*

The next, related by Mr. Tomes, was similar—the result of violent tooth-ache, followed by swelling of the jaw, and terminating in abscess and necrosis. The sequestrum, which was not detached, extended from the front of the jaw back to the second molar, over which part the teeth were sound, but very loose and painful on pressure, but when moved the fangs did not grate on denuded bone. They were allowed to remain; general and local treatment was adopted to

subdue inflammation and pain, which, at the end of a fortnight, had subsided, and the teeth were more firm. "Two months afterwards the teeth had become comparatively firm, and the swelling about the jaw had greatly subsided, but the dead had not completely separated from the living bone." The woman now thought lightly of her malady, and was from that time lost sight of.

From this Mr. Tomes concludes that teeth thus loosened, should be allowed to remain, if sound, and not stripped of their periosteum, nor the source of irritation, adding, "Much will be gained if they are by nature refixed in new sockets; and though the probabilities are greatly against the occurrence of this event, yet we need risk nothing by taking what chance there may be. Wherever there be fibrous tissue, there may be formation of bone; and it is possible that if the dento-alveolar periosteum escapes destruction, it may contribute to form new alveoli."—*Lectures on Dental Physiology and Surgery*.

A case came under the observation of Professor Virchow, in 1847, of reproduction of the lower jaw after necrosis from the disease produced by phosphorous vapor—a disease which is found to be frequent with persons employed in the manufacture of lucifer matches. This case is the more interesting in view of the opinion of Mr. Stanley, Dr. Heyfelder and others, that in this kind of necrosis, or rather, that in the destruction of the bone from this form of disease, regeneration does not take place.

The case was observed by Professor Virchow in the post mortem examination of a young girl who, about nine months before her death, had lost the left half of her lower jaw by phosphoric necrosis. He found a "firm, strong, unusually curved bone, intimately united anteriorly with the sound half of the jaw, and movable at the joint—in short, a complete regeneration of the bone." The original necrosed portion, which was in its former position, "consisted of the entire half of the lower jaw, with seven alveolar cavities, the angle, the articulating process, and the greater part of the coronary process;" and it measured, "from the lower border of its angle, to the point of separation anteriorly, $3\frac{1}{8}$ inches." "The new bone exhibited the outward form of the necrosed portion. The body was irregularly round. The alveolar processes replaced by a flat surface, pierced by a canal for the vessels." It measured $3\frac{3}{4}$ inches. "The angle of the bone was of the same shape in both, only that it was more acute in the new bone. The length of the processes corresponded."—*Verhandlungen Physcolisch Medicinisch Gesellschaft in Wuzburg*, 1850, via *Amer. Journal of Dental Science*, April 1851.

It would appear, however, as a general rule, that, in necrosis from the affection referred to, normal regeneration does not take place. Nature makes an effort to repair the loss, but it results in a degenerate structure—a peculiar osseous deposit, or "osteophytic incrustation," taking place around the old bone. Mr. Stanley maintains that

new bone is never thrown out in this form of necrosis. "There is here," he says, "a total want of the essential conditions for the reproduction of bone—namely inflammation in healthy structures, with health in the general system." And this apparent absence of any regeneration of bone, inclines him and others to regard it as a distinct disease. The peculiar "pumice-stone-like" substance found by Dr. Heyfelder on the surface of the portions of bone which he extracted in such cases, is also regarded as indicating an affection distinct from ordinary necrosis. (See reports of some cases, and remarks, by Messrs. Simon and Stanley, relative to this subject, as copied into the *Am. Journal of Dental Science*, April and July, 1851.)

The power of the maxilla to generate bone is sometimes strikingly manifested in mercurial diseases of these parts, in an attempt at osseous reparation resulting in a peculiar kind of ankylosis. Thus Dr. Werner records a case in the *Am. Journal of Medical Science*, 1852, of ankylosis of the lower jaw from salivation, where, "from the anterior molars on each side backwards, bony arches connected the upper and lower jaws." A similar instance is afforded by Dr. H. H. Tolland, in a communication to the *Charleston Medical Review*, for March, 1853, detailing some interesting cases of "Immobility of the lower jaw from the abuse of mercury," through adhesion and cicatrization of the soft parts. The subject was a young lady who had had sloughing of the greater portion of the left side of the face, (but which was gradually replaced and finally closed up.) An extensive cicatrix was the result, with immobility of the jaw, the mouth being firmly closed. On commencing an operation in this case it was found that the soft parts adhered to an extensive surface of bone which appeared to be the cause of the immobility. "An incision was made, extending from the ear to the angle of the mouth through the cicatrix. Both the superior and inferior portions of the soft parts being dissected up, a smooth and solid bone was exposed, extending from the superior to the inferior maxillary bones, to which it was connected, and from the first molar tooth to the angle of the jaw." This was divided with the saw; was solid, and in some portions half an inch thick. The inferior maxillary bone now moved with facility. The new bone came away several months after, leaving the teeth in their original position. "In this case," adds Dr. T., "an extraordinary curative effort was made, and it was only by the formation of bony matter that the deficiency in the cheek could have been restored."

Dr. F. H. Hamilton, of the Buffalo Hospital, gives the following instance of reproduction of the jaw, which came under his observation.—In August, 1849, a lad, seven years old, was given some "homœopathic pills" for a mild attack of dysentery. "Within seven

days from the time the medicines were commenced, salivation began, and small ulcers appeared upon the inside of the mouth, upon the gums, &c. Three days after, the ulceration had extended so rapidly that the lower lip was nearly separated, and in a day or two more it fell off entirely. Three months later, the greater portion of the lower jaw came away in one piece, being two and a half inches long, and including the whole diameter of the bone, with its corresponding teeth. The bone and teeth are now in my possession." "In January, 1850, the lad was brought to me by his father. The lower jaw was then reproduced through the whole extent of that which had been destroyed, but the teeth were, of course, not replaced; nor was there a vestige of a lower lip, and even the bone was thinly and imperfectly covered with integument."

With respect to the reproduction of the teeth with renewal of the maxilla, there is, perhaps, not sufficient data for a definite conclusion. The probabilities would seem to be against it. The restoration of teeth in an adult, though the jaw were perfectly reproduced, we should regard a physiological paradox, unless it were by some such anomalous process as that which sometimes produces a third set. But there is reason to believe that in the reproduction of the jaw, lost while the permanent teeth were in their sacular stage, the germs of these teeth might be reproduced, in a condition corresponding to that of the originals at the time, and capable of subsequent development in the usual way. But it is only by well authenticated facts that these points can be positively determined.

Dr. Carpenter refers to an instance of this kind, in connection with other examples of extraordinary regenerative power. "An instance is recorded on authority which cannot be doubted, of the twice repeated reproduction of a supernumerary thumb, after it had been twice completely removed; and the author has been assured by a very intelligent surgeon, that he was cognizant of a case in which the whole of one ramus of the lower jaw had been lost by disease in a young girl, yet the jaw had been completely regenerated, and teeth were developed and occupied their normal situations in it." * It would not be safe, however, to rely upon an instance so indirectly obtained and indefinitely detailed; and it is somewhat surprising that Dr. Carpenter should have failed to have satisfied himself of the authenticity and particulars of a circumstance so important in its physiological bearings.

A case of reproduction of a portion of the lower jaw with the

* Principles of Human Physiology, 5th Am. Edition, p. 561.

teeth, has recently been communicated by Dr. J. M. Todd, of Monongahela City, Pa., as follows :

"A young lad, aged about twelve years, had his first molar, on the left side below, extracted ; a slight fracture of the jaw occurred, which resulted in caries. A considerable discharge took place for about eighteen months. Drs. Biddell and Keys, failing to cure by every means usually employed in such cases, resolved upon its removal. They accordingly proceeded, and on making a free incision from about the region of the ear to within a short distance of the base of the lower jaw, the carious portion, which comprised about one-half the bone, *dropped out*. All diseased portions of bone being removed, the wound was closed, and the parts healed kindly. In the course of a few days, quite a deposit, of what appeared ^{to} be bone, took the place of the removed portion of bone ; this grew and hardened, finally ossified, the articulation seeming *complete*. The use of the jaw was restored, with but a very little deformity, which consisted of a slight enlargement of the face on the afflicted side, a *little too much new bone*, and a slight twist of the mouth. But the "wonder of wonders" is yet to be told. The boy is *now* getting a new set of teeth on that side also. The first and second molars being *already through*, with a fair prospect of the rest soon '*following suit*.' You will understand that the *entire half* of the bone was removed."—*Dental Register for April*, 1853.

We do not altogether understand from the above, whether the portion of bone removed comprised only one-half of the jaw of that side, viz : the alveolar portion, "to within a short distance of the base," leaving the base intact, or whether it included the entire half of the inferior maxillary bone. But whichever it be, the case is remarkable and interesting, and we join in the hope expressed by the editor of the *Register*, that Dr. Todd will note its progress and report the particulars connected with it.

B. W.

ART. LXXXV.--REGENERATION OF NERVES.

[The following novel facts are not only of great physiological interest, but throw light upon the question of reunion of dental nerves when "*separated*" in the "nerve operation." If divided nerves become disorganized, and regeneration takes place by a new production—and "in continuity with those which have been left sound," thro' the mediation, as it were, of fibres of areolar tissue, (see Carpenter's Phys., p. 347,) it would indicate that when the dental pulp is completely cut off from its connection, it must irrecoverably perish.]

"Dr. Augustus Waller has been engaged in a very interesting series of investigations on the regeneration of nerves. While previous observers were contented with examining the nerve tubes at the point of section, or in the cicatrix, this author has pursued the investigation to the peripheral ends; and has arrived at the interesting and unexpected result, *that the old fibres of a divided nerve never recover their original functions, and that reproduction of a nerve takes place not only in the cicatrix itself, but throughout the terminal ramifications.*.. The vagus of a dog having been divided, was examined after twelve days, when it was found that the inferior segment was completely disorganized, the fibres being all converted into black or irregular and opaque parcels, and the membranous tubes destroyed. At the end of a month the condition was different: almost all the disorganized substance had been removed: new fibres were found in place of the old, possessing all the characters of young fibres, and being very difficult of recognition, owing to their grey color, intimate adherence, and want of double contour; but on the addition of organic acids—concentrated acetic especially—they were readily recognized as embryonic fibres. The disorganized nerve presents nothing similar, there being only an amorphous tissue, which dissolves readily in acetic acid, without any residue."

"The author thinks that the neurilemma plays an important part in the regeneration of nerve fibres; it remains intact during the changes thus described. The results of section applied to the sympathetic fibres show that regeneration takes place in them in a similar manner. The following remarkable results were observed with regard to nerves in connection with ganglia: the roots of a spinal nerve were laid bare, and cut above the ganglion, in such a way as to leave a portion of them in connection with it: the animal was again examined after twelve days, when it was found that the sensitive part of the root attached to the superior part of the ganglion was altogether disorganized, in the same manner as when a nerve is cut in its peripheral portion. The nerve, followed into the ganglion, exhibited its branches disorganized, subdividing in the body, and mixing with fibres altogether normal, and appearing to terminate in a collection of ganglionic structures equally altered. All the fibres which passed out of the ganglion preserved their normal condition, the state of the fibres being found the same, after a month or more, as at first. The regeneration of the superior fibres between the ganglion and the spinal marrow takes place in the ordinary manner. The motor fibres were completely altered and disorganized to their extremities."—*Medico-Chirurgical Review.*

ART. LXXXVI.--ON THE COMPOSITION OF HUMAN MILK IN HEALTH AND DISEASE.

By MM. VERNOS and A. BECQUEREL.

[The results of these investigations are important in the inquiry as to how far the milk in different conditions may affect the chemical structure of the teeth of children and thus modify their susceptibility to disease. It will be seen that they invalidate some of the inferences built upon former analyses, but although affording more correct data, they at the same time suggest the uncertainty of chemical analyses in the present state of the art, as bases for positive conclusions.]

"Looking at the contradictory reports of various analyses of milk, MM. Vernois and A. Becquerel have entered into an elaborate investigation of the entire subject. They have especially chosen 89 uniform and complete analyses to deduce certain deductions from. The following is their account of the composition of this fluid :

	In Health.	In Acute Disease.	In Chron. Dis
Water.....	889,08	.... 884,91	.... 885,50
Solid parts.....	110,92	.... 115,09	.... 114,50
Sugar.....	43,64	.... 33,10	.... 43,37
Caseum and extractive	39,24	.... 50,40	.... 37,66
Butter.....	26,66	.... 29,86	.... 32,57
Salts (by incineration)	1,38	.... 1,73	.... 1,50
Density.....	1032,67	.... 1031,20	.... 1031,47

"There are more solid parts in the milk of nurses aged from 15 to 20, than in those from 35 to 40. The quantity of butter is notably increased during the colostrual period. Gestation does not produce alteration in the composition of the milk at first, but at a later period it increases the proportion of the solid parts. Menstruation diminishes the density, the weight of the water and of the sugar. It increases the weight of the solid portions, especially the caseum. Insufficient aliment renders the milk too watery, the effect falling especially on the butter and caseum. An excess of butter and caseum always accompanies an ill state of health of the nursling. There are certain women whose milk, independently of any special cause, always contains an excess of butter or caseum.

"In both acute and chronic disease, the water diminishes and the solid parts increase ; but there the analogy between these two classes ceases. In acute disease, the sugar considerably diminishes while the three other elements are increased, the caseum alone nearly repairing what is lost by the sugar. In chronic disease, the butter and salts are increased, the sugar remains stationary, and the caseum diminishes. Thus in acute diseases, we have loss on a respiratory element, and excess in a nutritive element ; and in the chronic, loss on the nu-

tritive element, and increase of the respiratory element. In phthisis, without diarrhoea or emaciation, there is little sensible modification; but these being present, there is considerable diminution in the weight of butter. In syphilis the density is extraordinarily raised; the butter diminishes, and the salts disproportionately increase.—*Gazette Medicale*, 1853, No. 5.

ART. LXXXVII.—COLLECTANEA.

A New Odontalgic Remedy.—Dr. D. B. Whipple, in the *Dental News Letter*, recommends oil of turpentine as a remedy for toothache. "It is," he says, "particularly applicable in that class of toothache resulting from the inflammation of a remnant of a nerve, especially in the palatine fang of the molar teeth; also, where toothache is created in examining the teeth, accidentally wounding and thereby irritating an exposed pulp. The application of a small saturated pellet, securing it lightly with dry cotton, will produce almost instant relief."

Chloroform and Ether.—Dr. Isaac Green, in reporting a surgical operation, (*New York Medical Gazette*,) says, "the choice of the anæsthetic agent should, I think, in all cases, be governed by the temperament, habits and condition of the patient to whom it is to be administered. It is probable that by sufficient attention to these peculiarities in each individual case, and the consequent use of chloroform, ether, a mixture of the two, or both alternately, as such a discrimination would dictate, we should hear less frequently of the disadvantages, dangers, and fatal effects of this class of agents."

Inserting Plate Teeth over the Old Roots.—Among the "vicissitudes" in our profession, this plan of setting teeth seems about to go into fashion again. Several years ago, it was pretty generally practised, but gradually lost repute, until it came to be pronounced "malpractice," by some in high quarters. It would not be surprising if it should come into vogue again, now that so much is said and done with a view to "saving" teeth the nerves of which have been removed—the same principle by which this is done being applicable to the roots.

Dr. J. S. Clark, of New Orleans, has recently published (*Dental Recorder*) a strong article in favor of allowing the roots to remain as a basis to the plate. The *Dental Recorder* also takes ground in its support. The advantages urged are similar to what probably every dentist has heard from his patients. The disadvantages are to be obviated principally by plugging the roots to the apex.

Dr. Clark's mode is first to clean out the fangs, by removing the

pulp, or its remains, and then to fill them to the very point. In a few days he expects to see the "gums assume a healthy appearance, by a restoration to health of the periosteum (external) of the fang." When this takes place, "I cut down the crowns" he says "carefully to the point of juncture with the gum, taking care not to cut beyond that point so as to wound the periosteum, if possible. Then, after finishing my fillings to that shape, finish by fitting a plate with perfect bearings on the end of the fangs, on which I will adjust teeth, fitting the 'festoon of gum' like a pivot tooth, securing by any method thought best in the case." He thinks "that, in all cases, where a tooth with a dead nerve does not ulcerate, but is retained, as we sometimes see them, in a comparatively healthy state, the foramen at the point of the fang is *hermetically sealed by nature herself*."—"A fact indicating the operation of fang filling."

Sources of the Vitality of the Teeth.—In the *Boston Medical and Surgical Journal*, Dr. M. M. Frisselle has an article aiming to show that the operation termed "Rhizodontology," and the removal of the dental pulp, are unphysiological and impracticable. He assumes that in puncturing the vessels of the tooth through the fang, the nerve is in reality divided, "or at least that the vessels are so much injured that they are unable to do duty;" and hence his remarks are only applicable with reference to the "amputation" of dental nerves, and to the plugging of teeth, the nerves of which have been either thus or otherwise destroyed. He holds "that the principle of vitality in a tooth resides in its central ganglion *only*—that it has no *other* source, and when *that* is cut off it *immediately* loses its vitality, and nature soon makes an effort to remove it." In support of this, he refers to Carpenter, who says that the proper nutriment of the tooth is absorbed from the pulp cavity through the dentinal tubuli, and that these vascular canals (in man) do not usually exist in the cementum: which he thinks shows "that the cementum petrosa, (or 'periosteum,') of the tooth possesses usually no vascularity, and consequently cannot be a *source*, or even *medium* of vitality to the tooth." He finds his position further confirmed by the unhealthy condition of teeth that have been deprived of their central vessels for any length of time. Whence he concludes "that the destruction of the central ganglion destroys the vitality of the organs," and that any operation contemplating it with a view to their preservation is unphysiological and impracticable.

We had only intended a sketch of the Doctor's views, and will merely remark that we think him in error, in denying that the cementum, or *osseous part* of the tooth is vascular, and also in confounding it with the 'periosteum.' To us it is clear that the cementum derives its nutriment and vitality from the periosteum which invests it, and which also lines the alveoli, and that these constitute a medium and source of vitality to the tooth, although not of itself sufficient for the healthy and sustained support of the organ. But it is equally clear that the 'central ganglion' is the *principal* source of vitality, without which the tooth must sooner or later perish.

Educational.—Dr. Thomas, of the *Virginia Medical and Surgical Journal*, remarks: "Under the American Collegiate system, professors are appointed whose qualifications are tested in no manner whatever. They are selected by partiality, or upon a reputation that may be fictitious or real, no one being called upon to decide it. In fact, without any election whatever, a body of men, qualified or not, may form themselves into a faculty for any purpose, and yet our Legislatures will grant them the right to confer degrees. Under this wholesale and promiscuous system, is there any use in talking about standards of education?"

After referring to the inducements operating in lowering the standard of requirements—the prosperity of schools acting on the system and hanging out the lure of *Doctors Made Easy*, the poor encouragement of others more exacting, &c., &c., he says: "Let every State encourage medical institutions, and endow them; but let the power of conferring diplomas be taken out of their hands, and given to a body uninfluenced by the temptations to which we have alluded. If this is not done, a few short years will suffice to degrade our profession to such a level that few respectable men will consent to cultivate it."

DENTAL COLLEGES.

We have received the "Annual Announcements" of the Ohio and Philadelphia Dental Colleges, session of 1853–54, the regular lectures of which, commence on the first Monday of November next. We notice that the chair of Pathology and Therapeutics, made vacant in the former by the resignation of Prof. Mendenhall upon his acceptance of a chair in the Miami Medical College, has been filled by the appointment of Prof. J. B. Smith, M. D. An additional Professorship, and a Lectureship on Chemistry have been added to the curriculum. "The faculty are determined to make the Institution as efficient in every respect as the wants of the Profession demand;" and as it is the only school for dental instruction west of the mountains, we hope to see them abundantly sustained.

The Philadelphia school entered upon its first course last fall. It requires among the conditions of graduation, that the student "must have studied under a private preceptor at least two years, including his course of instruction in the college"—a most laudable example in its young career, which we trust will be followed, (and if possible, improved upon,) by the older schools, considering the great advantage to be derived from a term of private pupilage in connection, additional, with a public course. It has a full and able faculty.

☞ Our dental exchanges, the *American Journal of Dental Science*, and the *Dental Register of the West*, are tardy, neither of them having been received since the April number.

MISCELLANEOUS NOTICES, &C.

We have received an *extra* of the N. Orleans Med. & Sur. Journal, containing an article from Dr. E. D. Fenner, on "The abortive treatment of Continued Fever, in which he proceeds, to notice some of the comments which have appeared in the Medical Journals, upon the plan of treatment advocated by him in the 2nd. vol. of his Southern Med. Reports. Dr. Fenner sets out by reaffirming the positions assumed in his Med. Reports, viz :

1st "That all the Continued Fevers originating in the Southern States, are *but varieties of endemic malarious fever*, and are controllable by the same remedies, if judiciously applied at their commencement.

2nd. "That all those fevers, most probably, proceed from an ærial poison, which enters the blood, first exerting its malign influence upon this fluid, and thence conveyed through the channels of the circulation to every part of the system.

3rd. "That the primary perturbation of the system generally recognized as an *attack of idiopathic fever*, consists for the most part in *functional derangement, without any special organic lesion*, and is controllable by such a remedy or combination of remedies, as is capable of equalizing the excitement and circulation, restoring the healthy action of the secretory organs, allaying pain, and depurating the blood. It is believed that such a combination of remedies may be found in bloodletting, large doses of quinine and opium, and some mercurial, as calomel or blue mass.

4th. "That the *organic lesions* found on post mortem examinations of fever cases, do not fully indicate *the disease* that had existed *ab initio* ; but rather *the secondary and ultimate results of disordered action proceeding from a blood poison* ; which morbid action or functional derangement might probably have been corrected, and the blood-poison *neutralized or eliminated* by the judicious application of appropriate remedies."

Dr. Fenner is positive that Typhoid fever can in all cases, be *cut short*, by the quinine and opium in large doses, within the first *two or three days* of the attack ; but is willing to admit that, after the third or fourth day, the result of his plan of treatment is uncertain, and that after organic lesion is commenced, the quinine treatment is *gratuitous*. But the question may with propriety be asked, is Dr. Fenner, or any other medical man able to determine, with infallible certainty, (for there must be no doubt on this point,) during the first two or three days, whether a case of fever is typhoid or not ?

Ten or a dozen years ago, typhoid fever was a much more distinct and well defined type of fever, than at the present day. There is of late years, such a manifest propension to a blending of the different types of endemic fever, that we are frequently at a loss to determine for the first day or two, what the peculiar character of the fever is, or what type it may assume in the next 48 hours, and we doubt not, that the experience of a majority of practitioners in this latitude at least, will corroborate our own; and until medical men have ascertained an infallible criterion in the diagnosis of typhoid fever *ab initio*, they ought not to be too confident, that the fever can be *cut short* by large doses of quinine and opium, or any other mode of treatment.

J. W. K.

Law vs. Secret Medicines.—DR. R. C. FOSTER offered a resolution in the State medical Society at its last meeting, providing for the appointment of a committee to “memorialize the Tennessee Legislature at its next session, in reference to the manufacture and sale of secret medicines, so as to secure the passage of a law requiring the recipe of all such to be filed with the Secretary of State, etc.” The mover was made the chairman of the committee, and was requested to confer with the East and West Tennessee Societies, to secure their co-operation, and report progress to an adjourned meeting of the society in November. About the same time, perhaps the very day on which Dr. F. introduced this resolution into our State Society, the American Medical Association, at the suggestion of Dr. S. W. Williams,

Resolved, not only “that the thanks of the Association be presented to Dr. Winslow Lewis, of Boston, for the bill which he presented and endeavored to sustain in the Massachusetts Legislature,” but *voted* that a committee be appointed for the purpose of petitioning Congress and the State Legislatures to enact regulations and laws similar to the above.

While we perfectly agree with Dr. Cox, of Maryland, that the surest death-blow to quackery, is to treat it with contempt and silence, we equally agree with Dr. Bolton, of Virginia, that when the ingredients of which these quack compounds shall be set forth on the label, you at once divest the medicines of the great charm of mystery, which gives them such importance in the minds of the public. And when the people see that for a few cents, they can procure a better article from any druggist in their own city or village, they will cease to pay their dollars to a *down caster*.

And this brings us to the fact, that medical men, in a profit and loss point of view, are not those most interested in the prohibitory traffic in secret medicines; true, perhaps, the physician is cut off from a considerable portion of practice, which, under other circumstances, he might get. And the druggist is deprived of the pleasure and profit of filling from his own chemical stores, quite a number of prescriptions. But then the amount of disease superinduced by the indiscriminate use of these nefarious vagaries, and the consequent demand for professional skill, and well ordered remedial agents, make

up the deficit, for it is an unquestionable fact, that since the wholesale invasion and use of these secret medicinal compounds, disease has very perceptibly, ah! fearfully increased among the common people.

We have such little reverence for quackery whether in the abstract, extract or concrete, and such regard for life, as connected with science, that we shall not only labor for the accomplishment of the object of the committee, but hope the forthcoming Legislature, rather than fail in this, will pass a law requiring of every manufacturer, vender or dispenser of medicine, that the name of the article sold, given or prescribed, of whatever kind, as that article is usually known, shall be written in English, *full and legibly*, so that all men may know what they are buying, and govern themselves accordingly. But if after the Legislature shall have done this, any one reasonably educated, of good eyesight and sound mind—whether he be Pope, Cardinal, Priest or Doctor, buys arsenic as arsenic, and as such takes it to his soul's content, and to the utter extinction of his own life, we would not blow him up, hang him or put him upon the rack. A written recipe, and an open ticket.

W. P. J.

Geographical Distribution of Animals and the Races of Men. By J. C. NOTT, M. D., of Alabama.

It is painful to witness the prevalent tendency of this boasted age of science and philosophy, to foster infidelity, and to encourage a disbelief among the devotees of the natural sciences, of the authenticity of the Bible. No stronger evidence of the corruption of the national morality can be required, than the character of education which is so rapidly coming into favor among the schools and colleges of the present day. We had been taught in our youth to venerate the literary institutions of the United States, as the crowning glory and ornament of our republican land—the potent instrumentalities, under the direction of christian philosophers, of inculcating a wholesome public morality, and conducive to the best interests of christianity. But our respect and confidence are beginning to give way to suspicion and distrust.

The introduction of Infidelity into the colleges and universities of the United States, under the meretricious garb of the physical sciences, is a portentous sign of the times, and threatens, if not speedily checked, to revolutionize our social organization, and assimilate us, as a people, to infidel France. That which was designed by a beneficent Providence, to advance the religious character of the people, is being perverted by inconsiderate men, to corrupt the religious principles of Young America, and ultimately, as a consequence, to subvert our republican institutions.

German neology and rationalism are slyly stealing into the high places of our colleges and universities, and some of the greatest fools in human shape, styled D. D's. and L. L. D's., are unwittingly co-operating with Satan, to overturn the very foundations of christianity, and substitute in its stead the abominations of transatlantic theology.

But it is even more natural that we should regret that any thing should emanate from a member of our own profession, a distinguished one too, of such a character as Dr. Nott's article on ethnology. We had anticipated much pleasure from a perusal of the proposed work of Dr. N. and his co-laborer, when it was first announced as in process of preparation. The high character of the two gentlemen for scientific attainments, seemed a reasonable guaranty that the forthcoming work would be every way worthy of our noble profession, and a valuable contribution to physical science. We are sorry to find, however, that we are sadly disappointed.

We do not propose, at present, to review the article as a scientific essay—it might be regarded as uncalled for—perhaps unfair, as the work has not yet been completed; but we shall take the liberty of noticing, briefly, the anti-scriptural grounds upon which the author proceeds to establish his theory.

Dr. N. prefaces his article with an interrogatory involving the two alternatives of the question proposed for investigation, and proceeds:

“Two schools have long existed, diametrically opposed to each other on this question. The *first* may be termed the theological naturalists, who now look to the book of Genesis, or what they conceive to be the inspired word of God, as a text book of natural history, as they formerly did of astronomy and geology. The *second* embraces the naturalists proper, whose conclusions are derived from facts and the laws of God, as revealed in his works, which are immutable.

Not only the authority of Genesis, in matters of science, but the authenticity of this book, is now questioned by a very large proportion of the most authoritative theologians of the present day; and, as its language is clearly opposed to many of the well established facts of modern science, we shall unhesitatingly take the benefit of this liberal construction. The language of Genesis, touching the point now before us, is so unequivocal, and so often repeated, as to leave no doubt as to the author's meaning. It teaches clearly that the deluge was *universal*, that every living creature on the face of the earth at the time was destroyed, and that *seeds* of all the organized beings of after times were saved in Noah's ark. The following is but a small portion of its oft-repeated language on this point.

‘And the waters prevailed exceedingly upon the earth, and all the high hills that were under the whole heaven were covered.’—‘Fifteen cubits upward did the waters prevail, and the mountains were covered.’—‘And all died that moved upon the earth, both of fowl, and of cattle, and of beast, and every creeping thing that creepeth upon the earth, and every man. All in whose nostrils was the breath of life, of all that was in the dry land—and Noah only remained alive, and they that were with him in the ark.’—*Gen. chap. vii.*

Now, we repeat, that language cannot be more explicit than this, and if it be true, it must apply with equal force to *all* living creatures—animals as well as mankind. It is really trifling with language to say, that it does not distinctly convey the idea, that all the creatures of our day have descended from the seed saved in the ark, that they were created within a certain area around the point at which Adam and Eve are supposed first to have had their being.”

Passing over the division which the author has thought proper to introduce, of *theological* naturalists, and *proper* naturalists, and his unscholarly mode of definition, we are astonished at the rashness of his assertion that, “not only the authority of Genesis, in matters of science, but the authenticity of this book is now questioned by a very

large proportion of the most authoritative theologians of the present day." What authority has Dr. Nott for putting forth such a statement? The most authoritative theologians of the present day question the authority and even the authenticity of the book of Genesis! Who are they? Such an assertion is a sad commentary upon the author's theological learning, as he has clearly mistaken a few second rate German neologists for "the most authoritative theologians of the present day," and most unpardonably confounded the rationalism of Nevin and his followers, with sound theology. We affirm and challenge Dr. Nott to the issue, that no *authoritative* theologian of the present day, denies the authenticity or authority of the book of Genesis.

It is unfortunate for Dr. Nott's theory, that he has not been able to adduce more explicit testimony against the authenticity of the book of Genesis; and it seems to us decidedly unprofessional to prefer so grave a charge against so distinguished a historian as Moses, upon whose authority even the Son of God was willing to rest his claims to the Messiahship, with no more substantial pretext than the assertion, that his language is inconsistent with the presumed teachings of science; and therefore, that it is perfectly fair that he should take the benefit of "*this liberal construction!*" We think it would puzzle Dr. Nott to construe his dogmatic repudiation of the authority of Moses, into a "liberal construction;" such a summary mode of treating an author's testimony is, to our comprehension, any thing else than a liberal construction, and it is surprising that Dr. Nott has not taken more pains to set aside the testimony of Moses, especially, as upon his own admission, it is essential to the soundness of his ethnological theory, that the book of Genesis be proved to be a spurious production. The issue is between Dr. Nott and Moses; he has made the issue himself, and unless he can establish his position by something more conclusive than his bare assertions, it will be no difficult matter for his readers to decide upon their respective claims to authoritativeness.

It is a remarkable fact, which surely ought not to have escaped Dr. Nott's attention, that the Bible affirms nothing in point to his interrogatory, nor does it, in the least, contradict his position, so far as he contends for the geographical distribution of animals. The language of Moses is plain, and admits of but one construction: "And God said, let the earth bring forth the living creature after his kind, cattle and creeping thing, and beast of the earth after his kind; and it was so." How Dr. Nott can construe "the earth" to signify a "certain area," we think will puzzle his readers to understand, and yet he stontly and dogmatically insists, that the language conveys the idea, that animals "were created within a certain area around the point at which Adam and Eve are supposed first to have had their being."

But is it indeed necessary, in order to account satisfactorily for the existence of the different species of the *genus homo*, that the Mosaic record should be set at naught? Moses states, that at a certain pe-

riod after the deluge, "the whole earth was of one language and of one speech;" and after going on to describe the mischievous results that were likely to grow out of this unity of *language* and *speech*, he says, "the Lord scattered them abroad from thence," (the plains of Shinar,) "upon the *face* of all the *earth*," and the Lord called the name of the city "Babel, because the Lord did there confound the language of *all the earth*." Will Dr. Nott undertake to tell us whether this confusion of language was the effect of a series of natural agencies, or the result of a miracle? Certainly he must admit the agency of a miraculous intervention—and would it have been any greater exertion of divine power, at the same time, or at a subsequent period, to have impressed upon the different families, the physical peculiarities which now distinguish the several varieties and species of the genus? The Bible has in no instance anticipated scientific discovery, nor have the sacred writers recorded any thing to gratify an idle curiosity. The scriptures of Moses and all the prophets are burdened with themes unspeakably solemn and sublime, challenging the wonder and admiration of all intelligencies; they declare in simple, yet forcible language, that God created the first pair of the human race after his own image, and placed them in a beautiful and fertile country; that they transgressed the law that secured their well-being and the divine presence; that their posterity became corrupt, and were destroyed by a deluge—that the descendants of Noah at a subsequent period, were scattered throughout the whole earth, carrying with them, into the different parts of the earth, the *imperishable tradition* that they were all descended of a common parent, and were brethren by blood; that as by the disobedience of the one man, (Adam,) sin had entered into the world, and death, as a consequence, had passed upon *all* men, because *all* had inherited the curse from the one man; so it had been arranged, in the counsels of Infinite Wisdom, that in due time, by the obedience of *one* man, (Christ, the second Adam,) the effects of the first man's transgression should be removed, and *all* the nations of the earth, the natural descendants of the Adamic stock, restored to the divine favor, and that in the dispensation of the fullness of times, He would gather together in one family, all the nations which are on earth, and make them partakers of a better inheritance than the first Eden. Now, according to Dr. Nott's theory, there must, of necessity, be a distinct Savior, (a second Adam,) provided for each species of the *genus homo*, (each centre of creation,) or else, that but *one* species is to be benefited by the atonement of Christ. Which horn of the dilemma will Dr. Nott choose?

But has Dr. Nott seriously considered the import of his language, and the tendency of his theory, if admitted? Is the science of ethnology of such surpassing importance, that Dr. N's theory of the creation and geographical distribution of the human race, should be established, even should it jostle the faith of immortal souls in the word of God, and furnish infidelity with aid and comfort in its unhallowed war upon the doctrines of revelation? Does Dr. Nott think it a

mark of the scholar to exalt a newly fledged branch of science (falsely so called,) above the authority of the word of God, and with a few disjointed, crude and ill-digested theorems, suggested by the wild speculations of a few wandering *savans*, and interpreters of dubious hieroglyphics, to discredit the authority of the Pentateuch, and upset the whole superstructure of Revelation? Had he no misgivings as to the soundness of his views, when, according to his own admission, they are in irreconcilable conflict with the whole system of Divine Truth? Did Dr. Nott suppose that the interests of science or the dignity of the medical profession, were to be advanced by degrading the sacred scriptures, and substituting a heartless rationalism in their stead?

In conclusion, we would suggest to Dr. Nott that he reconsider the grounds of his ethnological theory, and investigate more carefully the Mosaic record of the creation, and see if he cannot account for the existence of the several species of the *genus homo*, and their geographical distribution, upon more philosophical premises, and less objectionable to that large class of his readers, who differ with him in his estimation of the Book of Genesis. We would remind him that the doctrine of the unity of the human race, was held by the sages and philosophers of Athens, the seat of Grecian science, at the period of its highest refinement and cultivation; for though they ridiculed Paul for preaching a resurrection from the dead, they did not dispute the Apostle's doctrine, that God had made of "*one blood all nations of men, for to dwell on all the face of the earth, and had determined the times before appointed, and the bounds of their habitation*;" and we would likewise call his attention to the fact that, the Jews, who boasted of their superiority over every other branch of the human family, and who would have readily availed themselves of the doctrine of a plurality of creations, as more congenial to their family pride and national prejudices, never questioned the unity of the race. And we would further remind him, that distinguished writers have long ago satisfied themselves that the sons of Noah were the original archetypes of the three great divisions of the race, the red, the black and the white—that they have clearly demonstrated, from the records of both sacred and profane history, that the descendants of Ham are the present Ethiopian and other black races of Africa; and that whilst they have fully satisfied themselves on this point, their faith in the divine record was not at all shocked, upon ascertaining, with equal certainty, that his brother Japheth was a white man, and that his posterity embraces the white races, wherever they are found; and if Dr. Nott is at a loss to account for these facts upon *physical* principles, we hope he will be satisfied with the conclusions of many other great men before him, that the judgments of God are unsearchable, and "His ways past finding out."

J. W. K.

The King's Arm :

"It shall not be bound up to be healed, to put a roller to bind it, to make it strong," etc.—*Ezekiel* xxx, 21.

To Professor B. W. Dudley has usually been accredited the honor of originating the idea of the application of the roller in healing broken bones, &c. But thousands of years prior to his existence a greater than Dudley, alluded to the efficacy of the roller. Whatever others may think of Dr. Dudley's estimate of the "Word of the Lord" as a whole, we are greatly deceived if he has not, at least, staked the major part of his claim to glory, honor and immortality *in this world* upon the Bible.

W. P. J.

"Back to Moses let young America go."

CARTWRIGHT.

We publish the article of Dr. Cartwright in this No. of the Journal—first because of the intrinsic merit of the article in a physiological point of view, and secondly because of Dr. C.'s ingenuous devotion to Bible truth.

If, as is indicated, the "battle of the evidences" is to be fought through the medium of medical journals, and on the field of "the physical sciences," then, indeed, will we put on the armor, and, entering the list, claim Dr. C. as our elder brother in the conflict. W. P. J.

Physicians of the "Present Age."—To Norwood, the elegant contributor to that popular monthly, "The Ladies' Pearl," we are indebted for the following beautiful description of the Doctor's mission :

"Macaulay tells us that the common laborer, in our day, who is so unfortunate as to have his skull or his limbs broken, *is more scientifically and skillfully treated* by any ordinary village physician that may be called to dress his wounds, *than the King could have been*, by the best surgeon in the days of Charles II. This fact speaks well for the advancement of medical science during the two centuries past, and every candid, intelligent physician will bear witness to the truth of the statement. The tables of mortality show us, as one of the results of this improvement, (assisted also, doubtless, by better living,) that the average duration of human life has greatly increased in the same period ; while the small pox, that was wont, in former times, to depopulate whole cities and districts, is rendered harmless by vaccination. The doctor's mission is a noble one. It is to combat disease and subdue it. Guided by the lights of his science, he can expel disease from the human system, raise the afflicted from a bed of pain, re-establish the violated laws of health, and plant new roses on the pallid cheek where ghastly death has sought to fix his horrid seal. With what delight do we welcome him when those who are near and dear to us require his aid ! With what pleasure do we recollect each word of hope he utters ! How anxiously we wait to hear his opinion of the disease and the remedy. And how delighted we are to see the beloved invigorated up again. Affection has no greater joy in store for us. All honor, then, to medical science, which has done so much and promises still more for suffering humanity ; and a double meed of praise to those noble spirits, its worthy ministers, who labor for its advancement, and by their discoveries and skill alleviate the sufferings, prolong the lives, and improve the condition of our race."

Half-yearly Abstract of the Medical Sciences, Edited by W. H. RANKING, M. D., and C. B. RADCLIFFE, M. D. London. No. 17, January to June, 1853.—American Reprint. Philadelphia : Lindsay & Blakiston.

British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery. New York : Republished by S. S. & W. Wood.

Amid the multitude of publications teeming from the Medical press, a judicious abstract, presenting a general survey of their contents within small compass, is not only of great convenience to the reader, but absolutely indispensable to enable him to keep advised of the progressive state of Medicine. As a reflex of medical opinion and discovery in Europe, the above works stand pre-eminent in their respective departments; and their republication at rates within the means of every physician, is a service to the profession in this country that cannot be too highly appreciated.

"*Ranking's Abstract*" is too well known as a digest of the current medical literature abroad to need a word of exposition from us. We particularly admire its convenient and systematic arrangement of subjects. A valuable feature in the work consists in the introduction of regular "Reports of the progress of the Medical Sciences,"—affording an historical sketch or compendium of each department for the preceding six months.

The Medico-Chirurgical Review is to the more elaborate treatises of the day what the "Abstract" is to the journals. It is a digest of medical books. In addition to its usual matter, we were pleased to see introduced in the April number, a section entitled "Annals of Micrology," designed as a half-yearly summary of recent microscopical discoveries; and in the July number, the "Annals of Physiology" to be kept up hereafter alternately with the former. B. W.

Glasgow Medical Journal is the title of a new Quarterly, the 2nd No. of which we have received, published in Glasgow, Scotland. From the general appearance of the work, and the marked ability displayed in one or two articles which we have only had time to examine, we have formed a high opinion of it. J. W. K.

Transactions of the Tennessee State Medical Society at their Twenty-Fourth Annual Session, convened at Nashville, May 4, 1853. Nashville : Printed and Published for the Society by J. F. Morgan.

This publication has just made its appearance. It is a small book of 80 pages, gotten up in Mr. Morgan's best typographical style. It contains the Minutes of the Society, the President's Address, a Report on Adulteration of Medicines, two Apologetics in lieu of Reports, five brief Cases, an "Act of Incorporation," the Society's By-Laws, and a List of some of its Members. The address is rather brief, but good, the report elaborate and useful, the cases interesting and creditable. The *apologetics* are instructive—as showing the utter apathy of the profession generally throughout the State in regard to the

advancement of Medical Science. The nature of the subjects requiring the co-operation of members in different sections—in the one case, several hundred circulars and more than a hundred private letters, were sent to medical men for information upon which to base a report, without eliciting more than ten or a dozen communications. In the other, (additional to the committee's circular in the Medical Journals,) letters were sent to the post masters of all the county seats in the State, asking the names and address of the most distinguished physicians in their counties. The *postmasters* promptly responded. A printed letter was then sent to one physician in every county asking information &c. But *three* communications were received!

The List of Members—'from the organization' of the society 'down to the present time,' we should judge, from the omission of several present at the late meeting, to be very incomplete. It is arranged neither alphabetically, chronologically, nor according to the localities of the members.—Upon the whole, however, the *Transactions* may be pronounced "very good"—what there is of it.

B. W.

"Clear the Way for Old Kentucky."—We see, with pleasure, that G. W. BAYLESS, M. D., so long and favorably identified with the progressive development of the Louisville School, and ASBURY EVANS, M. D., have both taken position in the Medical College of Ohio.

Dr. B. fills the chair previously occupied by Professor COBB. Dr. E. that of Surgery, vacated by H. W. BAXLEY, M. D.

Years ago—when matriculants in the same school, and from the same State—we had an opportunity of knowing something of the qualifications, sterling worth, energy and enterprise of both these gentlemen, and we heartily congratulate the trustees of the Medical College of Ohio upon such accessions to the faculty.

Dr. THOMAS WOOD, the talented associate editor of the *Western Lancet*, has been elected Professor of Surgical and Practical Anatomy.

W. P. J.

Dr. Marshall Hall.—The July No. of the "American Journal of the Medical Sciences," contains a lecture delivered by this gentleman at the Pennsylvania Hospital, on Laryngismus and its effects; and on Tracheotomy. Dr. Hall has for a number of years devoted his time and attention, especially to the physiology and pathology of the nervous system, and has deserved the esteem and gratitude of the medical profession, for the light which he has thrown upon the pathology and treatment of epilepsy. Dr. Hall's method of proceeding, in his investigations, is worthy of the highest admiration.

It has been the lot of most great men in medicine, to achieve only a posthumous reputation. Dr. Hall, however, has been fortunate enough to live in an age of sufficient intelligence to be appreciated and honored for his valuable contributions to medical science—and we sincerely trust that he may live to achieve still nobler triumphs in the field of medical science, and aid, yet more, to elevate the noble profession of which he is already a bright ornament. Dr. Hall

does not propose, as some have misunderstood him, to *cure* epilepsy by tracheotomy, but rather to disarm laryngismus and trachelismus, the former especially, of its terrible effects. He contends that laryngismus is generally the *effect* or *result* of a reflex morbid action, occurring in various convulsive affections, as epilepsy, tetanus, Hydrophobia, infantile and puerperal convulsions, &c., and that the dangerous effects are *cerebral congestion, asphyxia, &c.* He insists that tracheotomy cannot fail to *cure laryngismus and its effects*, in whatever disease they may occur, and especially *epilepsia laryngea*. The *emotions*, the *irritations*, he sets down as the usual first causes of epilepsy. After repeated attacks, the augmented susceptibility and excitability favor the operation of the same or other causes. Trachelismus, he shows, is the cause of the compressed veins, congestion of the face, tongue, neck, and encephalon; whilst laryngismus, which he regards as a link, effect, or sequence of the *trachelismus*, adds to them their most formidable character, in the severest forms of epilepsy.

J. W. K.

DEATH OF PROFESSOR CALDWELL,

[On the 9th of July.]

Truly a great man has fallen. Nature has seldom been more lavish of her gifts to any one, and these gifts have rarely been more perseveringly and highly cultivated, than in the person of Dr. CHAS. CALDWELL. Early in the winter of 1839-40, it was our privilege to meet and form the acquaintance of the venerable *Professor of the Institutes of Medicine and Medical Jurisprudence*; and we even now recur to the impressions then made upon our mind, as not altogether unlike those so interestingly described by an eastern visitor, as he stood before, and gazed upon the majestic proportions of the towers of Balbeck. Unlike those towers, Caldwell was not always without, but daily entered to the inner temple, and became emphatically a tower of strength to the Institute. But like those colossal pillars, he stood the admired relic of a generation past. As a teacher, he was bold, original and instructive. As an author, perhaps unequalled in the South West. Whilst he seemed to regard it his peculiar province to review almost every production, from whatever source, worthy of a great mind, he, by no means, confined himself to reviews, but otherwise dispensed an amount of invaluable information to the profession.

His papers on the Unity of the Human Race, Physical Education, Phrenology, Mesmerism, Malaria Quarantine, Physiology, Temperaments, etc., to say nothing of his Biographies, Histories and other works of varied and philosophical character, commended him not only to Americans but to Europeans as a truly great man.

In our pupilage, we read his books, we took notes of his lectures, and studied the subjects of his popular appeals; and thus learned to admire the man, if not for his practical, his ideal greatness. Had he but served his country with as much zeal and fidelity as he did the profession of medicine, long since the name and fame of Chas. Caldwell would have been as familiar to our ears as Calhoun's, Clay's, or Webster's.

W. P. J.

Principles of Medicine, Comprising General Pathology and Therapeutics, &c. By C. J. B. WILLIAMS, M. D., F. R. S. Edited by MEREDITH CLYMER, M. D. Fourth American Edition, Revised. Philadelphia: BLANCHARD & LEA, 1853.

Diseases of the Liver. By GEORGE BUDD, M. D., F. R. S. Second American, from the last Improved London Edition. Philadelphia: BLANCHARD & LEA, 1853.

The above sterling works (from the publishers through W. T. Berry & Co.) are received too late for review in the present number. Williams' Pathology is unquestionably one of the best works extant. The excellent Treatise of Dr. Budd contains several highly finished and beautifully colored lithographic plates.

B. W.

Bibliographical notices of *Tilt's Elements of Female Health*, and *Tully's Materia Medica*, are on file for our next.

Also received—

Transactions of the Thirtieth Annual Meeting of the Society of Virginia, with the President's Address. Richmond, 1853.

The Claims of the Medical Profession.—The Annual Address before the N. Y. State Medical Society and Members of the Legislature. By A. Clark, M. D., President of the Society, &c.

Report on the Health and Mortality of Memphis for 1852. By Chas. Todd Quintard, M. D. (From the Author.)

The following, from a letter from the able Editor of the *New York Journal of Medicine* to our confrere, we have taken the liberty to transcribe :

NEW YORK, May 24, 1853.

DR. F. A. RAMSEY :

Dear Sir—The fourth number of the *East Tennessee Record of Medicine and Surgery* has just come to hand. I have read in it, with regret, the "Adieu;" for I was strong in the belief that the marks of study and toil which it bore would lead it to a success and permanency unequalled in South Western periodical literature. I am glad, however, to learn from its pages that your efforts are to be continued in the cause of our periodical literature. * * *

S. S. PURPLE.

Dr. Ramsey was unable to prepare anything in time for our present number, on account of absence from home and severe illness in his family. But we are authorized to say, that his energies are now devoted to the Journal, and that he will hereafter furnish matter regularly for its pages.

Our confreres in Kentucky and Louisiana, it will be seen, have come up in earnest. They will continue their valued assistance by furnishing articles from their own pens, and also such communications as they may receive in their respective localities, and find worthy of publication.

EDS.

ABSTRACT OF A METEROLOGICAL REGISTER,

Kept by O. W. MORRIS, A. M., at the Tennessee Institution for the Deaf and Dumb, Knoxville, Tennessee, 1853.

APRIL.

	Bar.	Ther.	Winds.	Cloudiness.	Rain.
Means,	29.033	59.457	Westward,	4.7	5.47 inches.
Thermometer, Minimum		40.6	Maximum	78.9	Range 38.3 deg.
Barometer	do.	28.503	do.	29.286	.783 in.
Greatest rise of the mercury in 24 hours in the thermometer was 25.9 deg.					
	do.	do.	do.	barometer,	.467 in.

It rained on seven days, two of which were thunder showers. In the first half of the month there was much smoky weather.

MAY.

	Bar.	Ther.	Winds.	Cloudiness.	Rain.
Means,	29.070	63.8	Westward,	3.93	3.875 in.
Thermometer, minimum		46.5	maximum	82.3	Range 35.8 deg.
Barometer,	do.	28.796	do.	29.280	do. .484 in.
Greatest rise of the mercury in 24 hours in the thermometer was 22.9 deg.					
	do.	do.	do.	barometer,	.168 in.

It rained on eight days, on two of which were thunder showers. The thunder, both in April and this month was not so heavy as in February. There was also lightning at a distance on four evenings. Lunar haloes were observed on the 16th, 18th and 19th; that in the evening of the 16th was finely colored, though small. A solar halo was also observed on the 18th, at 2 o'clock, P. M.

JUNE.

	Bar.	Ther.	Winds.	Cloudiness.	Rain.
Means,	29.138	75.27	Northerly,	2.	1.409 in.
Thermometer, minimum		60.	maximum	94.5	Range 34.5 deg.
Barometer,	do.	29.000	do.	29.387	do. .387 in.
Greatest rise of the mercury in 24 hours in the thermometer was 23.4 deg.					
	do.	do.	do.	barometer,	.108 in.

It rained on six days, in which there were five thunder showers. Lightning, without thunder, was seen on seven evenings. But little rain fell during the month, and vegetation suffered very much, so that there was a failure in the crop of oats.

The self-registering thermometer on the 30th of June, showed that the mercury was at 98.5 deg. in the afternoon of that day, which is the warmest day we have had.

The average height of the barometer, for the first half of the year, has been 29.077 inches—of the thermometer, 53.867. During the same time, the heavens have been covered with clouds on an average of 4.6. The whole quantity of rain has been 26.054 inches, giving an average of 4.34 inches for each month. The greatest amount being in February, (9.6 inches,) and the least amount in June, (1.409 inches.) May not this fact account for the prevalence of the flux?

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
NOVEMBER, 1853

DEPARTMENT OF MEDICINE AND SURGERY.

ARTICLE LXXXVIII.—PURGATIVE MEDICINES IN ABDOMINAL
AFFECTIONS.

“Use purgative Medicines sparingly in acute diseases, and at the commencement, and not without proper circumspection.”

“Those things which require to be evacuated, should be evacuated wherever they most tend, by the proper outlets.”

“If the matters which are purged be such as should be purged, the evacuation is beneficial, and easily borne; but, if otherwise, with difficulty.”

“Neither repletion, nor fasting, nor anything else, is good when more than natural.”
APH. HIPPOCRATES.

I do not presume—though my name is honored by being associated with the Editorial control—that the readers have noticed the publication of two numbers of the Southern Journal of the Medical and Physical Sciences, without a paper, which in the May issue, I promised to prepare. On the contrary, I fear that the “thoughts presented suggestively,” have fallen, not by the road-side, nor upon stony ground, nor amongst thorns, but as seed destitute of the “force at rest”—the vital *ens* requisite to give them root, from which to spring forth, bear fruit, and prove productive of the good desired. Notwithstanding the apprehension, I am constrained to press upon the consideration of practitioners, the importance of questioning the propriety of uniformly or freely administering purgative medicines to allay manifestations of disease that are confined to the abdomen; and to reiterate the language of my previous paper that under such circumstances the practitioner’s powers of ratiocination should be

used as considerably, as when investigating symptoms having a more general or more occult character.

Hooker, in his admirable "Physician and Patient," says, that though the purgative pills advertized in newspapers "in some cases actually do some good, the difficulty with them is, that used *indiscriminately*, they in many cases do injury, and in some to a fatal extent." And the same may be said of purgative medicines even when directed by practitioners—too many of them falling into routine practice, and prescribing medicines without a full appreciation of the patient's condition. How many are amenable to censure for having administered a purge, and ordered its repetition, upon the sole ground that there had been no alvine discharge for a length of time—say, if you please, a whole week; how often are purgative medicines prescribed upon this representation, without any consideration whatever of the fact that fœcal matter is the result of secretory action, and of course, without any inquiry into the economy, which, if instituted, would expose the cause upon which the absence of defœcation depends, and lead to the adoption of other measures, perhaps simply dietetic or hygienic, rather than the heroic or persistent use of purgative medicines? The fact that one motion from the bowels every twenty-four hours is the law, seems to be constantly remembered, but that it has its exceptions, wholly forgotten. And it is considered unnecessary now to more than make reference to the fact that not unfrequently individuals, either congenitally or accidentally, are habituated to the retention of fœcal matter for a much greater length of time than twenty four hours, without the production of any unpleasant consequences. I have myself seen a person who very seldom had more than one evacuation a week, and yet, so far as I know, his health was unimpaired. Suppose this individual to present himself to a physician, complaining of pain, more or less severe, of the abdomen, of recent occurrence, persisting after the operation of some purgative agent, simple or compound—would a succession of purgatives be a proper prescription? Or whether, under such circumstances, would not purgative medicines be injurious—the secretory action of his economy having been long accustomed to depurate through other channels than the alimentary canal? To my mind, the question is one of importance, for if answered affirmatively, the ordinary practice of administering purges, or a succession of laxatives even, is an error and should be corrected by the practitioner as speedily as possible. In such a case, we may presume that the mucous tissue and its glands of the intestines, does not furnish enough product of secretion to keep its

surface lubricated ; or that the effete matter of the economy is passed off through the skin, kidneys and lungs, or that the glands with ducts terminating in the canal, and which are considered by some, as influencing alvine discharge, by the quantity, and the quality of permeability of their products, either do not secrete plentifully, or the secretory product is too dense to destroy the cohesive force of the more solid debris in the bowels. Either presumption being correct, and the system remaining unaffected—exhibiting no evidences of a disturbed equilibrium—a resort to purgatives would be unnecessary, indeed injurious, for “persons in good health quickly lose their strength by taking purgative medicines, or using bad food.” But ultimately the man has colic, and becomes the subject of professional observation, and the fact of long periods of time existing without any fecal deposite, is too apt to be seized upon as an evidence sufficient to justify the conclusion that constipation prevails, and a course of purgative—hydragogue or cholagogue, according to the taste of, rather than rational election by the prescriber—is immediately instituted. Except upon the principle of revulsion, the impression of the agents must prove detrimental, for if they increase the more fluid secretion from the mucous tissue, or enhance the discharge of the larger glands, or both, altering the action, to which the parts have long been accustomed, and without diseased disturbance, locally or generally, they are establishing a state of things that is unnatural, and, of course, unhealthy, so far as the individual is concerned. Or suppose that an individual who has one or two discharges from the bowels every day, is suddenly attacked by pain in the epigastric, without any previous interruption of habitual regularity, and at a time when no dietetic error has been committed, what propriety would there be in the administration of a purgative medicine ? While contributing nothing whatever to the relief of the pain, would it not in a degree proportioned to the strength of its impression, tend to destroy the natural condition of the parts impressed by it, and thus materially interfere with the regularity, which is itself an evidence of health.

I have written suppositively and interrogatively, because, for the most part, the mind is indisposed to reinvestigate a subject with which it feels itself to be familiar—to follow an argumentative chain intended to destroy long ago adopted conclusions ; and the same manner of presenting the subject, if pursued, would cause the whole list of abdominal affections to pass in review—nothing being affirmed dogmatically—exhibiting points demanding reflection, that have been permitted to remain unobserved. But enough has been written, if it

is at all effective, to arouse attention, and induce that investigation which will terminate in the appreciation of the circumstances of disease properly demanding purgative medicines ; and it only remains for me to place on record some of the cases which have induced me to call in question the primary importance attached to purgative medication.

EPIGASTRIC PAIN.

The first case which I think proper to record in connection with this subject is one of simple pain. The subject was a widow, mother of several children. She has, since her widowhood, had much trouble from both business and moral circumstances ; but being very positive and energetic, she met difficulties with a courage that ensured their being overcome.—Her person is rather tall, well developed, though without any disposition to plethora ; countenance yellowish, or brownish yellow, calm, determined and somewhat wrinkled ; appetite good, alvine discharge daily, and only occasional disturbance of menstrual regularity, without any involvement of the general economy ; aged forty-five ; long accustomed to the use of snuff. For several years at irregular intervals, but latterly more frequently, she has been the subject of very singular attacks—bearing no relation, so far as enquiry could determine, to her appetite, her menstrual function, or the condition of her bowels—nor occasioned by any particular kind of aliment, or error of diet. For she has been attacked at times when circumstances had induced her to refrain from food of any kind, and when she had eaten as usual, as well as when she had indulged beyond the every day habit, as after a social dinner ; when the menstrual flux was on her, and in every particular natural—at its commencement, during its flow, and about the time of cessation, and when the flux had been regular in its occurrence, its duration, its quantity and its character, and had ceased for several days, as well as when some irregularity had prevailed. It had occurred during active exercise and the most profound natural sleep, that had been entered upon in perfect health, and without any feelings of uneasiness whatever, had been destroyed by the sudden onset of this, the patient's most dreaded enemy. Its approach could be sometimes discovered, by a feeling of lassitude and disposition to sleep, which, however, was frequently experienced without being succeeded by an attack, which for the most part was sudden and unanticipated. The first symptom was a sensation of distention of the stomach, so positive as to require all the clothes to be loosed, and even the lightest pressure to be seemingly insufferable—though actual distension did not exist, so far as palpation could discover. Pain succeeded without any spasm, or cramp, and without any alleviation of the sensation of distension—commencing obscurely, and gradually attaining an acme of intensity, maintaining it during several moments, and then as gradually declining, until wholly gone, leaving the patient a few minutes respite to recover from the depression it occasioned, and prepare for its next onset. The

pulse, under such circumstances, was hardly perceivable, and exceedingly thready ; the surface bathed in a free, clammy perspiration, and the extremities cold. For relief from these attacks she had submitted to bleeding, blistering and purging, and when she first came under my observation, she was weekly taking purgative pills, but without any decrease of frequency or severity of the attacks. Frequent experience had taught her that mustard emetics ensured the most prompt temporary relief, but more recently, these were evidently losing their energy, and for the first time, under any circumstances, during her life, she began to indulge in gloomy and desponding feelings. She had never been accustomed to flatulency, and was not aware that expulsion of wind from the stomach or bowels attended or preceded the subjugation of an attack. Opiates had no effect, she having taken laudanum by the teaspoonful, without any, even the least, alleviation being experienced. Hot applications were invariably used, and in the patient's opinion, with very marked advantage.

The patient was not gouty, rheumatic, nor the subject of spinal irritation, had not suffered under any acute disease, was not debilitated, anemic, or hysterical. Mental anxiety, and habitual control of strong emotions had attended her for many years, but "certain not very accurately defined conditions of the system" could not be discovered, except the very neuralgia of the stomach, was itself the evidence and the condition. Blood-letting, blistering, purges, and emetics had been again and again tried, and found inefficient ; and, as in duty bound, I availed myself of the benefit of others' failures, remained content not to repeat the administration of the agents of these classes of the medical armament, and assiduously attempted to satisfy my own mind as to the nature of the disease, and to determine the proper course of treatment. Besides, under the circumstances, was there any rational indication for purges, blisters or bleeding ? I must confess my inability, strong as my faith is, in the virtue of counter irritation, deviation, or positive shock, to see that the agents thus mentioned, could probably prove beneficial, even in the modes of curing that I have designated.

Reviewing the circumstances, my mind selected as alone worthy of special regard, the influence of mental anxiety and moral emotion, the influence of a long, and now excessive use of tobacco, and the periodical, though irregularly so, occurrence of pain. Circumstances with which I had no connection, fortunately modified the pecuniary affairs of my patient, and thus relieved me of a difficulty which possibly would have wholly thwarted my efforts, for when the mind is the very torch of disease, physical impressions are at best but temporary remedies. The use of snuff was discontinued, at most its use was only occasional, whereas it had been habitual ; brandy or wine and pills compounded of camphor, hyosciamus and quinine were taken, the former daily, the latter three or four days every week at first, gradually

lessening the number of days, and breaking up the weekly regularity, as the succession of attacks became less frequent and less severe. They finally, after a year, wholly disappeared—two years or more having now elapsed without any recurrence of the horrid pain.

That this was a pure gastralgia or neuralgia of the stomach, there is no doubt ; but the “certain not very accurately defined conditions of the system,” predisposing to, or constituting the disease, had permitted the woman not only to suffer with the pain, but alas! to suffer many things of many physicians ; the succession of practitioners not remembering the advice of Hoffman,—“for the prevention of these disorders, the belly should be kept open ; but *purgatives are improper*, as they tend to weaken the stomach, and to promote an afflux of humors.”

As incidental, I must be permitted to point to this case as already establishing the fact that “true gastric neuralgia which does not interfere with digestion” does occur, which is called in question by one of the most distinguished teachers and writers of the American Medical Profession, and whose lectures and work on practice, are the governing oracles of many Southern practitioners, the learned Professor himself being “Southern born and home bred.” True, Cullen, essaying a methodical nosology, succeeded in finding a name for the affection, which his prejudice prevented him from giving a place in his work on Practice : this furnished some authority for this doubt, but it is entertained, I believe by but few of those who have presumed in these days upon the reading disposition of the age.

ILEUS.

A gentleman aged about forty, a worthy citizen, and an officer of the county, was a few hours before he became the subject of these observations, in the enjoyment of fair health.

Soon after taking breakfast, a slight pain, with a disposition to stool attracted his attention. He repaired to the yard, evacuated his bowels, and soon after mounted his horse, the pain yet presenting paroxysmally, but not with sufficient severity to cause a declension of a proposed ride to town, distant three miles. In company with a friend he rode about one mile, when the paroxysms of pain became so frequent and so severe, that he had to be lifted from his horse, and was with difficulty carried home. His wife immediately proposed sending for a physician, to which he replied, “It’s of no use, for you can do all that can be done now.” His physician, however, was summoned, and by courtesy, I have been put in possession of the history of the case. The patient was called to stool every minute and a half, to three minutes, and suffered with excessive pain, with intermissions, having its location about midway, and in a line, from the umbilicus,

and crest of the ileum, on the right of the median line, and which could be covered by the point of the finger. During the paroxysms the patient's appearance was wild in the extreme, but during the intervals was calm, and expressed a full realization of the fact that he would inevitably die ; and he affirmed that just at the point of suffering was something that ought to, but he was satisfied could not, be removed. The abdomen was free from tumefaction or distension, and pressure elicited a complaint of soreness only.

Some hours after the commencement of remedial efforts, the physician in charge observed, just at the point of pain, a slight pyramidal swelling, which continued to enlarge, in a line or ridge running directly across, to the left. Soon vomiting commenced, and continued almost incessant until the termination of the case ; and the abdomen commenced swelling, rapidly and excessively, until it turned the lower ribs out and up. The distention progressed until death, which occurred about 8 P. M., about twelve hours from the first discovery of pain ; and report says that the body continued to swell after death, until it bursted the coffin open, the thorax then being observed to be enormously distended.

Purgatives, anodynes, and injections to abdominal distension, constituted the treatment—the injections passing off, except one, and that nothing more than a fecal stain, without any discoloration.

This case occurred in the latter part of October, 1851, at which time and for several days of the succeeding November, pains of the abdomen, and colic, were frequently presented for treatment.

I have designated this as a case of Ileus, not because I wish to convey by the use of that term the idea of intussusception, or intestinal invagination ; but because it is sufficiently comprehensive, as Lord Coke says of “and so forth,” or Noah Webster of “tumor,” and, at the same time, more powerful to attract attention than the term colic, which, however, is fully as comprehensive.

If I were, however, to include a pathological condition in the definition of the term, I think that given by Van Sweiten, from Galen, should be adopted, as expressing the facts, rather than any other—“a phlegmon of the intestines to such a degree that neither flatus nor feces can pass out through them ; in consequence of which follow most violent gripings, and pains intolerably excruciating.” For this definition throws the practitioner upon the general ground of inflammation, and forces him to reflection, and leads to a discriminating conclusion, as to the means best adapted to the subjugation of the local affection, and at the same time least liable to exasperate the fire. But most, or all others, as Cullen's idea, that it is a cramp, or the almost universally received opinions that it is an intussusception, or the result of, if not itself, constipation, restrict the prescriber to antispasmodics, or purgatives, probably specifically designated by the

authorities, to whose skirts he attaches responsibilities which should be his own alone.

Sydenham's idea, unconnected with the particular organ which he affirms, is first involved, and all others subsequently, that irritation is the essential element is undoubtedly correct, and the circumstances attending the patient must determine the course proper to be ordered by the physician—preconceived ideas of spasms, invagination, constipation or anything else, should not be permitted to govern the judgment.

The irritation may originate from "hardened fœces, gross volumes of flatus, intestinal knots, strangulated hernia, inflammations and humors in the diameter, and invagination of the bowels," and in some persons, suddenly, or after previous complaint, give rise to pain, followed by all the evidences, more or less intense, which characterise Ileus. The case presenting, and if any one or more of these causes be discovered as prevailing, should purgatives be administered? In my humble opinion, there is no purgative agent, from castor oil to gamboge or elaterium, which will not exasperate an irritation that is manifested by the excruciating pain, the horrible griping, the distention, and the rapid sinking which characterize Ileus. And I believe that the testimony of the most extensive observation support this opinion. In an ancient work, ascribed to Hippocrates, but which his annotators condemn as spurious, it occurs that "no additional mischief should, at all events, be inflicted by the physician, but he must do the patient as much good as lies in his power," and mentions the use of clysters, and inflation of the bowels by means of a bladder, but makes no reference whatever to purgatives in the treatment of Ileus—the author evidently not admitting the possibility of such agents ever being considered as proper under such circumstances.

An Ileus prevailing, Sydenham says: "As for the cathartics, however much you may administer them, they fail to act as such. *They become emetics and act upon the bowels the wrong way.*" Too frequently, alas, how common, is the failure to obtain purgative action, ascribed to their being ejected from the stomach, without any acknowledgement of the truth thus so plainly expressed by the great English Hippocrates. And it is much to be regretted that he lends the influence of his judgment to the use of purgative medicines, though he ascribes most justly, all the good effects of treatment to the laudanum which he directs, even returning thanks to the opiate. But if his "three points," for which he labors, be adopted by all practitioners, very much

harm cannot follow the use of purgative agents, for they come in only after the other, and most important points have been attained,—

1. To stop the inverted action,
2. To strengthen the intestines,
3. To relieve the stomach and intestines of their contents.

For he affirms: "I have observed it is to no purpose to give any cathartic medicine (no matter how strong) until the stomach has been strengthened, and *restored to its natural movement*; and until along with it the intestines have been similarly restored; *otherwise the purgatives become emetics, and do more harm than good. Hence, I defer all operations with purgative medicines,*" &c. Van Swieten quotes Galen as regarding alone, at first, "those remedies which relieve pain:" Bœrhaave's 964th Aphorism contains the summary of the treatment most appropriate to Ileus; "Its cure must be immediately attempted to be accomplished by, 1, bleeding; 2, laxative, diluent and cooling clysters; 3, drinking like laxative, diluent, cooling liquors, with a prudent interposition of opiates, &c.; 4, by fomentations applied to the whole abdomen; 5, by a careful *avoidance* of all things acrid, *forcing*, or heating, taken either in drinks, food, or *medicines,*" &c. And Swieten mentions linseed oil, and linseed and barley gruel as applicable agents under Bœrhaave's second and third indications; while the use of opiates and fomentations are highly lauded, quoting a number of ancient physicians who followed the same plan of practice, appreciating the saying of Aretæus, "for all kinds of *medicines*, from every quarter, which *relieve pain*, will be of use here." But no where does he introduce purgatives as proper, hardly doing more than making a simple reference to their use. Hoffman's cautions are against the propriety of purgatives, his positive recommendations being confined to glysters of warm water, with syrup of marshmallows, "warm bath and opiates." And Cullen first takes "off the spasm by various antispasmodic powers" before resorting to purgative agents, though Caldwell, his annotator, urges the primary resort to purgatives, and thus, no doubt, has measurably contributed to the production of the general use of these agents in abdominal affections.

The polite Gregory most unwisely persisted in the use of purgatives, even after he had tried them to such an extent as to prove them wholly insufficient for the purpose of cure, as to make him declare that generally the patient's "release from suffering is all that can be desired. * * * It is very seldom that Ileus is recovered from." And in all truth, can any other conclusion be attained by practitioners who, like Gregory, resort to other remedies, "*after the failure of*

purgatives," not deeming them as promising anything though, "after the failure of a *well-directed* course of medicines"—purgative? Good is more eclectic, placing purgatives as secondary to the means directed against the pain and griping, and the subjection of inflammatory tendency or action; but closes a paragraph in such language as shows most conclusively, that notwithstanding the very many causes enumerated by himself, in common with all other writers, he regards costiveness as ordinarily operating in Ileus.

Making enquiry of the more modern practitioner, the conclusion is attained which has induced me to propose the question are purgatives not too commonly used? Thus Whiting and Tweedie, affirming that "it is a matter of nice practical inquiry, how far the intestines should be stimulated by purgatives," and "that some cases which yield at first to a powerful purgative, and there are others in which an active purgative is decidedly injurious," adopt a course intended to be a moderate or medium one, and use agents which forsooth they call mild aperients, such as calomel, castor and croton oils. Indeed, directing purgatives, but denying the fact that they consider them at all proper. The pain allaying agents according to their teachings "*may be*" and "*are very often*" used, in connection with purgative substances; and while administering aperient (?) medicines by the mouth, "it is expedient to stimulate the colon by injections"—not emollient but "combinations of various purgatives, senna infusion, salts, croton oil, turpentine, &c. The Cyclopædia of practical medicine, is widely disseminated throughout this country, and exerts a very extensive influence on the practice of individuals who rely "upon the books," rather than on "reflection upon the nature of things."

Dr. Symonds takes a much safer view, and his practice must be attended with greatly more success than that of the last mentioned teachers. He writes under the term Colic, and says that the cases running "into ileus, or assuming the severe form from the commencement, particularly in the violence of the tormina and the vomiting, will call into requisition all the resources and ingenuity of the practitioner. In such cases it is questionable whether much good is to be attained by the use of purgatives; *and they certainly aggravate the sufferings of the patient.* The indication is to remove the impediment, for which purpose anti-spasmodics are sometimes the most efficient means. The cases in which purgatives are most indicated are acrid ingesta and fœulent accumulations. Now as it cannot always be determined absolutely that such causes have not been in operation, we usually administer at the onset *one* active cathartic, and if it fails to

remove the constipation we *no longer attempt at this stage to force the passage*, but take measures too for reducing the spasmodic contraction, whether this be the principle cause or only an accompaniment of the obstruction." These measures are bleeding, opiates and clysters. This extract is full and ample and contains all that is necessary to establish Dr. Symonds character as judicious and safe beyond that of either of the two others, whose opinions have been referred to here ; or than Copland, who gives purgatives primary importance, and uses the "may be" like Tweedie and Whiting in connection with the probable advantage to be attained by combining an opiate with the purgative.

But Dickson—may I not be permitted to say *our own* Dickson, for he should stand high in the esteem of all Southern physicians, well known as he is, both in professional and general literature—speaks to the point, and gives expression to the proper course, in language that can not be misunderstood. "The purgative practice as initiatory, or resorted to in the first instance, *I condemn most unequivocally* ; believing it to be more likely to aggravate than diminish the sufferings of the sick man, if depended on *previously to the relaxation* of the stricture of the bowel, *by the proper means*. A mild cathartic is a *secondary* measure of great importance and utility, and should not often be neglected." But Wood, though advising caution, directs the use of purgatives from the very commencement, immediately succeeding a bleeding.

I have thus thrown together the opinions of a number of physicians whose works are in the hands of American practitioners, exercising a bad or good tendency, contributing to the well-being or detriment of sick people, according to the individual habits of thought, and energy in instituting comparisons and contrasts, for the purpose of sustaining my belief as correct, that in abdominal affections, purgatives are too commonly resorted to, and used with too much liberality. All, without exception, speak of necessary caution, but some forget the caution they themselves have given, and irrationally hazard the lives of patients, by lending the influence of their names as authority, to the unrestrained use of medicinal agents of great value remedially, but of as great power, detrimentally, if not administered appositely.

But the proper source from which to determine the character of treatment ordinarily adopted, is periodical publications ; and by reference to these for a series of years, we have been unable to find a single case recorded, of severe colic or ileus, in which purgatives

were not the prominent agents of the treatment. Such a research has made us almost doubt as to the occurrence of intussusception except as consequent upon the very violent agitation of the intestines, itself the effect not the cause of the commotion, and in most cases occurring after the use of agents possessing more or less purgative energy. Of course I am not so situated as to be able successfully to defend a denial of its spontaneous or primary occurrence ; but I most earnestly invite practitioners to a rigid scrutiny of the old Journals upon their shelves, feeling convinced that every critical analysis of the cases of ileus or of intussusception found upon those pages, will develop a fact pregnant with import, that purgatives were first used, and failing to produce relief resort to other classes of medicinal reagents became necessary. This being true, is not the question legitimate—did not the purgatives exert some influence in the production of the invagination? The usual history is, the patient was “suddenly seized with violent pain in some region of the abdomen, was seen by a medical gentleman who prescribed purgatives, &c., no relief—consultation, fomentation, opiates, inflation, injections narcotic and bland, death, autopsy, intussusception.” The cases from journals of known authority, to which they had been communicated by practitioners of acknowledged reputation might be cited, but it is deemed unnecessary, because those who may affect the spirit and design of this paper, will undertake to investigate the subject themselves, and will not fail to make every endeavor to find facts bearing on the points involved.

The length to which this paper has already extended, and my desire that “its burthen may be borne” by others, warns me to desist. But I do so with the determination to record in the next number of the Journal at least two other cases, bearing upon the subject, and as I believe well adapted to sustain the position which I take, that purgatives are for the most part empirically used, and therefore too frequently injurious ; for without a reason for the faith which is reposed, danger is to be apprehended, and when closely searched for, the point of its approach and havoc is ready discoverable.

Sept., 8th.

F. A. RAMSEY.

ART. LXXXIX.—LETTERS FROM PARIS—THE CHLOROFORM QUESTION IN THE COURTS OF JUSTICE, &C.

From the Virginia Medical Gazette.

MR. EDITOR—The promise I made you, when we parted, to communicate whatever of medical interest this Hypocratican capital might bring forth during my sojourn therein, has been long delayed, but not forgotten. Scarcely a day transpires that is not replete with "facts" or "theories" to spur the memory to the recollection and the hand to the accomplishment of such promises. It is not my intention to send you a monograph, though the different subjects I shall briefly allude to might well deserve a separate and distinct consideration, which alone would fill, and will too, more pages than I propose giving them all combined. I intend simply to write you a "letter," which may be inserted in the "Stethoscope," if it be deemed worthy of a place in that journal.

TRIAL FOR HOMICIDE BY THE USE OF CHLOROFORM.

In order that the law may take precedence, as it prescribes, I invite your attention, to a recent decision of the "Imperial Court of Paris," in the case of MM. Triquet and Masson, who appealed from a previous decree of the "Chambre Correctionnelle," where they had been cited, to answer to the charge of homicide, by imprudence in the administration of "chloroform" for the purpose of removing a tumor from the face of a Mr. Breton, the "result" of this administration having been "fatal." The anæsthetic agent was given, it seems, with the usual precautions, but the extirpation of the tumor had been scarcely commenced, when (permit me to translate from the *Gazette des Hopitaux*) "the patient made several efforts to disembarass the mouth of its contents, then a sort of agitation suddenly manifested itself in his hands, his arms stiffened, the pulse became extinct, the heart ceased to beat, he fell as *thunderstruck*." The usual means of resuscitation were adopted—abasement of the head, artificial respiration or insufflation, &c., but ineffectually—the patient was dead—dead from *effects of chloroform*.

Here, then, arises questions of great interest to our profession. Are accidents of this nature *unavoidable*? Is it impossible to *forsee* them? What say MM. Nelaton and Velpeau of the Hospitals of the Faculty and La Charite, respectively, who were examined as experts in this case?

The former testified—1st. That local circumstances—such as regard the chamber of the patient, the quantity of furniture contained therein—are matters of but *slight* importance, the effect of the administration of chloroform being precisely "to intercept the air about the respiratory track." The only precaution requisite is to preclude the penetration of too great a quantity of it at one time.

2d. That the research of means to prevent such accidents, "*always unforseen*," has been the continual preoccupation of surgeons since the introduction of anæsthetics, but the measures proposed up to this time are very "contestable," or even do not "exist at all;" that the number of deaths do not amount to more than *one* in *two thousand* cases of chloroformization. M. Velpeau, after speaking of the inexplicability of the instantaneous deaths that occasionally result from the exhibition of chloroform, said it can no longer be doubted that chloroform "sometimes kills" even in the most experienced hands, and it is impossible to adopt any precautionary measures to ward off such accidents; that he himself would no longer *dare* to use chloroform, if physicians be exposed to prosecutions in such cases, even when all the precautions dictated by prudence shall have been employed. The court reversed the decision of the court below, (which had imposed a fine upon the defendants,) and exculpated them of all charge of imprudence or malpractice.

This case is interesting, not only from the fact that it will be used as a precedent with others in cases of a similar nature that will doubtless occur hereafter, but also for the (it is to be hoped) salutary lesson it gives to those who employ anæsthesia "uselessly;" that is, in operations requiring but little time, and giving pain of only instantaneous duration, or none at all. It is much the "fashion" to administer chloroform "selfishly," for the purpose rather of facilitating an operation, of keeping the patient tranquil, than for the true object of the agent—the prevention or annulling of pain. Such anæsthetizers should recollect, as M. Velpeau says, "That it is not the surgeon but the patient who has need of chloroform and who reclaims its employment." The abandonment of chloroform is becoming every day, with many surgeons, a subject of more serious consideration, or at least of more verbose discussions, whereas in fact its use should be *only* restricted. They confound the "use" with the "abuse" of the article. If chloroform were only to be given when truly indicated, (a question easily decided,) the small proportion of *one* death to *two thousand* cases would be no longer an objection; indeed, humanity would then cry for its employment so loudly that prudence would be silenced. Is it not better that one should die than that one thousand nine hundred and ninety-nine should suffer the "pain" of an equal number of deaths, and recover? Undoubtedly, when we recollect it is yet to be *proven* that chloroform does not act prophylactically in preventing mental or nervous *shock* of great operations, which would produce more fatal results, in a given number of cases, than the anæsthetic itself. Is it not true also, that patients occasionally died upon the operating table, suddenly, from syncope or other cause, before the introduction of anæsthesia? Such cases would now be ranged under the toxicological effects of chloroform. The symptoms of death by syncope cannot differ very much, be the cause of the syncope what it will. Let then chloroform be used only in grave and painful operations, and not for the drawing of a tooth or the plucking out of an eyelash; and above all, be it remembered that the mortality

said to be occasioned by it is not in proportion to the gravity of the operation for which it is employed, but to the frequency of its administration. If we bear this in mind, there will be no longer (if there is even now) so much reason for the expulsion of chloroform as there is for the abolition of steamboats upon the Mississippi; yet no one talks of this. And why? Ask the cotton planters.

The chloroform question has been recently before the Surgical Society in Paris. I would be pleased to give you a synopsis of the discussion, but this would occupy too much time. It is amusing, however, to observe how widely surgeons of distinction and experience differ in their *ideas* of the action of this agent, the proper manner of its administration, and the means to counteract its deleterious effects, "*Exempli gratia.*" MM. Ricord and Chassaignac, who took an active part in the discussions of the "Surgical Society," exhibited, in their notions regarding anæsthesia, a most striking absence of parallelism. These gentlemen have each employed chloroformization in more than three thousand operations. M. Ricord believes that the recumbent or horizontal position is the best for the patient during the inhalation of chloroform, but does not think that the use of a simple sponge, without intervention of compresses, handkerchiefs, &c., offers any immunity from those accidents, which are due, he says, to syncope or to a combination of syncope and asphyxia, "*syncopie-asphyxia*;" that the exhibition of chloroform should not be arrested on account of inordinate muscular action of the patient, there being usually a short period of excitation. He puts much faith in "*insufflation*" (mouth to mouth) for the resuscitation of those who are "*syncopic*" from chloroformization, but insists upon its early use. He does not reject the employment of ammonia to the "*glottis*," believing that there exists great relaxation instead of constriction of this orifice in chloroformic accidents. Reverse the opinion of M. R. quite in toto, and you will have precisely that of M. Chassaignac. This is a lamentable instance (is it not?) of how little is learned, or at least "*fixed*," in reference to certain questions, by what we call "*experience.*" Who and what are we to believe in regard to chloroformic accidents?—nobody and nothing? It seems almost reduced to this. A proposition and its converse may each be true, geometrically speaking, but the glottis cannot be contracted and dilated at the same time. Enough, however, of discrepancies. Much is said about idiosyncrasies, in the production of these accidents. It must, however, be a peculiar sort of idiosyncrasy, and wonderfully vagrant, that presides over the toxicological effects of chloroform—idiosyncrasy absent at one time and present at another; for it seems that the patient who is happily anæsthetized to-day, may die to-morrow whilst undergoing a similar operation. We may "*hope*" that something definite in regard to chloroformic idiosyncrasy, if any such thing exists, will be brought to light in the future; but we cannot believe the time for such disclosures near at hand, when a mist so impenetrable shrouds this question as does at present.

From personal observation, I find that the most usual manner in

which chloroform is administered in the hospitals of Paris, is to make the patient inhale it from a "cupped" sponge or compress, in the horizontal position. M. Roux of "Hotel Dieu" uses an inhaler, a metallic instrument contrived to fit about the nose and mouth, but so perforated as to insure a sufficient dilution of the chloroform with common air. I am not aware that it possesses any advantages over the sponge. Chloroform accidents are of exceedingly rare occurrence in the hospital service of this city—too much so, I presume, to test the advantages or disadvantages of the different mediums. There are, it is said, "eighty" authenticated deaths by this article, a fraction exceedingly minute of the innumerable cases in which it has been used. Chloroform may be reviled, but this should not lessen our belief in, and admiration for, the blessed immunity from pain it affords the suffering. Enthusiasts may go mad in its praise, but this should not make us the less cautious in its use nor the less weary in watching its effects. Some say that the desires of the patient should govern the physician; that chloroform should be given or not, as the wish of the *patient* may indicate. This should not be, for then we could not possibly restrict its employment. The surgeon is the proper and only judge of the propriety of its exhibition. His decision should be founded upon the gravity of the operation, and not upon the whims of the person to be operated on. He should not cry, by way of excuse, in the case of accident, "My patient insisted upon being anæsthetized." There is no extenuation of culpability, of malpractice, in this, but he should be able to proclaim to the criminalizing world, "that the operation, in which the administration of chloroform has been unfortunately fatal, was of long duration and of painful nature. I counseled my client, who was fully aware of the character of this operation, not to reject the blessings of chloroformization, but, warned by the precedent of *occasional* fatal results, I did not insist upon its employment. It is not the surgeon but the patient who has need of chloroform. It was indicated in this case, if in any it be. I therefore gave it. "Honi soit, qui mal y pense."

But, let us leave the "chloroform question." I crave pardon, Mr. Editor, for having pursued it so much further than I intended in the beginning.

ART. XC.—ARE THE SUBJECTS OF CONVULSIONS AND OF ANESTHESIA CONSCIOUS?

Hypocrates in one of his aphorisms says that a person suffering pain without realizing it, is in very great danger. This assertion of the great observer, should not be permitted to pass without attention, or with that smile of complacency with which the remark has been met by some, in whose presence it has been repeated. There may be simplicity in the affirmation, that pain exists without the knowledge or consciousness of the affected individual, but it is believed nevertheless to be an actual fact, by more than a moiety of the correct observers of animal functions, and human sufferings.

The question has been discussed, indeed the ground has been assumed, that the individual subject of surgical manipulation and under the influence of ether, chloroform, or any of the analogous agents, is not actually void of pain, or destitute of consciousness of its existence; but like the inebriated man, who acts consciously from the impulse of the moment, yet, when free from the agent which has produced the impression, all recollection—memory—is dead—the same as if the pain had not existed, the act had never been committed.

So too in convulsions, the practitioner has often from the stimulus of his own desire to know, as well as the sympathy or curiosity of by-standers or friends, to speculate as to the positive experience of suffering by his patient. For the most part, from the fact, that after the convulsive seizure has passed off the patient has no knowledge, no remembrance of the circumstances which had given to others so much cause for uneasiness, the question has been summarily answered that though rigid and relaxed, spasmed and distorted, contorted and awfully tossed by the convulsive power, yet the patient did not positively suffer—had no knowledge of the agony endured, as evidenced during the continuance of active eclamptive. Such an opinion has been the comfort of the writer, who believes that it has been his misfortune to see more of convulsion than any one of his age in practice, until he was forced to entertain doubt.

The man with his senses bewildered, mind clouded, and sentiments debased by the influence of alcoholic drinks, may receive a castigation or a serious personal or physical wound, and cry out with lamentations and groans, and yet not be able after the poisonous influence has been permitted to die away, to tell when or how it was received—indeed may never know unless informed by others that he has sub-

mitted to an indignity, or by the blood and wound that he has met with an accident, or received an injury. And again, these things may occur and the memory, when the individual is first passing into a normal condition, will preserve very faintly the impression made at the moment of occurrence. This has been observed very frequently though possibly not reflected upon by every one in this country, where unfortunately the opportunity is so often presented, by the unwise and illiberal perversions of the use of alcohol.

The same has been observed by every one who has employed the anesthetic agents to any extent. Patients have during operations given every evidence that they suffered all the torment known to be inseparable from the particular operation, and yet, after all has been accomplished, and the mind permitted to resume its throne, have no remembrance of anything during the moments passed under anesthetic influence ; while others have a dim recollection of circumstances as they occurred, or of the circumstances somewhat perverted.

Is this not the case with persons under convulsive attacks? A case has presented to the writers observation, which impressed him with peculiar force.

An interesting boy aged about three years, was observed by his parents to be unwell. Having lost two or three children by very sudden spasms, their fears were active, and the physician was promptly summoned. On examination no wireness or tension of the pulse, or nervous twitchings of the tendons could be discovered, and the apprehensions were attempted to be allayed. After a few moments he was observed to bend his head to one side and down towards a shoulder. His mother asked him "what's the matter," to which he replied very faintly, "nothing." This was repeated three times, the same answer given twice, but no notice whatever the third time. But a very few moments elapsed, when he was seized with a most violent and general convulsion, distorting his countenance and affecting the muscles of his whole body and limbs ; lasting for full fifteen minutes actively, when it passed off, leaving him in a listless, and apparently unconscious state for full half an hour longer. At the end of this period he opened his eyes, looked round, threw himself his full length, and very languidly exclaimed, "*what a hard ride that was I had on the wagon.*" It was indeed a hard ride, in a rough wagon, over a rough road ; for I believe, though I have seen them of a longer duration, I have never seen a more violent action than that convulsion ; and I am sorry to believe that the little fellow knew his sufferings, during

their continuance, though he remembered them but for a few moments immediately after their subsidence.

The case I have thought to be worthy of record, as a fact, which may with others, establish a conclusion something like positive, if it will not in itself settle a principle.

Sept., 10, '53.

F. A. RAMSEY.

ART. XCI.—UTERINE AND CONSTITUTIONAL DISORDERS.

From the Memphis Medical Recorder.

In the July No. of the Medical Recorder, some general views were published on the relations of uterine and constitutional diseases, as cause and effect,—their pathology, diagnoses and treatment, with the promise of further illustrating this subject, by cases of the different forms of female diseases, the circumstances and conditions in which they most commonly occur, their symptoms, pathology, diagnoses and treatment. In these general views, the following circumstances and conditions in life, in which females are most likely to have local or constitutional diseases, either functional or organic, produced or developed, were indicated; viz:

First.—Unmarried, delicate females, who, from constitutional weakness, have the menstrual functions deferred, or perform all the functions of health in a feeble manner—digestion, nutrition, menstruation, &c.

Second.—Unmarried, healthy,—even plethoric and robust females, from exciting causes, previous to, and during menstruation.

Third.—Married females, who may have been previously healthy and regular, as a consequence of conjugal excitation, and mechanical irritation or contusion, become the victims of disease and sterility.

Fourth.—In the parturient and puerpural state, at full term, the physiological condition is often changed, by exciting causes, into a pathological and diseased state, which results in chronic, local and constitutional disease.

Fifth.—The parturient and puerpural state from abortion is especially liable to the production or development of local and constitutional disease, from any of the exciting causes.

These five states of females, embrace the prominent circumstances and conditions in which they are most liable to local and constitutional diseases, either functional or organic, and they merit special and separate consideration and illustration. To these should be added,

Sixth.—The change of life, or period when menstruation ceases.

In determining the true pathology of female diseases, it will pro-

bably be found, that more cases of functional disease, both local and constitutional, occur in the first condition than in any other, and perhaps more than in all the others. The organs of reproduction being in a passive or dormant state, without the development and periodical innervation necessary to menstruation, where it has been deferred from constitutional feebleness, and in cases where the function is imperfectly performed from this cause, are less predisposed and liable to organic disease. In healthy and robust unmarried females, the reproductive organs being fully developed, the periodical menstrual molimen produces so much congestion, that the prevention or suspension of the catamenial discharge by any sudden cause, produces engorgement, irritation, and often as a consequence, inflammation, and a more or less permanent organic change in the tissues. When the reproductive organs have been developed by gestation, the great and essential physiological change necessary to bring them back to their normal size, and passive unimpregnated condition, is easily interrupted and prevented by many causes, and the consequence generally is, that inflammatory engorgement—organic disease—is produced, indicated not only by local functional derangement, but by the internal genitalia becoming a centre of morbid irritation, which sooner or later, by reflex nervous influence involves the whole system, and particularly the vital functions, in the catenation of diseased action. After the case has progressed to this stage, a casual and superficial examination of the symptoms would exhibit so much of general functional derangement, as to indicate that the constitutional disturbance was the primary disease. It does not come within the scope of this article fully to discuss the errors in pathology and practice spread out over so much space in the systematic works on the diseases of females, in which these conditions are treated of, as local, or constitutional functional disorders. The well informed and experienced practitioner of the present day, who has availed himself of the improvements in pathology, and of all the means of thorough examination, and a correct diagnosis in these cases, is not only impressed with different views as to their pathology and treatment, but he has a demonstration of their correctness in the greater success of his practice.

As this paper is designed to be brief and practical, without extending it by further general remarks at present, I shall proceed to the description and illustration of the diseases of females under the circumstances, and in the several different conditions of life proposed, as embracing the state and condition of the reproductive organs, not only most liable to become diseased, but representing the various and modified forms of local and constitutional functional and organic diseases. In doing this, time and space will not only be economized, but the careful observation and experience of many years will be made more available by the report and description of my own cases.

The first class proposed embraces all the cases of young females, of feeble constitution and retarded development of maturity or womanhood, and also unmarried females, in whom, from delicacy, and

feebleness of constitution, the menstrual and all other functions are feebly and imperfectly performed.

Case 1st. Miss W.—aged 16 years.—Parents wealthy and indulgent. She had been a good deal confined at school ; had taken but little exercise. For two or three years health delicate. When about the age of 15 some slight signs of the menstrual function occurred, such as periodical pain in the back, loins and pelvic region, with increase of muco-serous secretion, and for one or two periods the increased discharge was slightly colored with menstrual blood. These ineffectual efforts of the system to establish the menstrual function, and the full development of the mammæ, the pelvic viscera, and all the requisites of healthy and perfect womanhood, having failed, the periodical symptoms of catamenial excitement became less and less manifest, and the general health became more and more involved, until at the age of 16 her appearance and ill health alarmed her indulgent and anxious parents, and induced her to submit to medical treatment. Upon a careful examination, her general appearance was delicate and fragile ; complexion pale and sallow ; breasts slightly developed ; pelvis not fully expanded ; complained of headache, weakness, and dull aching pain in the small of the back, which was increased by the erect position when long continued, and attended with a feeling of pelvic weight or bearing down ; appetite irregular and capricious ; digestion attended with flatulence and heart-burn ; bowels torpid, indisposition to exercise, circulation and respiration much accelerated by exercise, attended with a feeling of palpitation ; spirits depressed ; occasional hacking cough, and the dejections from the bowels indicated a want of biliary secretion.

This array of symptoms, most of which are common in such cases, clearly indicated a general feebleness of the biotic or development forces of the system, induced by natural weakness and imperfection of the constitution, or superinduced by a want of the invigorating influence of proper exercise, clothing, diet, &c. For the more wealthy and indulgent parents are apt to gratify their daughters at this age, in the fashions of tight lacing, bare necks and breasts, thin shoes and stockings, and in the fickle and capricious craving of a weak stomach and morbid appetite ; while their pride and ambition prompt them to require the devotion of much time to the studies necessary for their accomplishment. The important object of clothing—the protection of the body from cold and moisture, without compressing the trunk so as to interfere with the development of the important organs, and the performance of their proper functions—is but little thought of or understood ; and the absolute necessity to youthful growth and healthy development of the body and mind, of a regular and full amount of relaxation from study, and of active exercise, is perhaps still less understood and carried into practice.

The cause, then, of cases like this, most frequently occurring under these circumstances, is to be found in the combined influences of improper dressing, fashionable excesses, or luxurious ease and physical indolence, too much and too long continued mental labor, and at the

same time the gratification of a morbid, capricious appetite, with crude, trashy, indigestible food, unsuited to a weak stomach and feeble constitution.

Miss W's. sickly appearance and ill health, attended with amenorrhœa, and derangement of all the important functions, and the sensible signs very much simulating the symptoms of prolapsus uteri, all clearly indicated a state of constitutional feebleness and general functional derangement. This view of the case, of course indicated an alterative, tonic and invigorating course of treatment.

Treatment.—All studies to be suspended, or to be occasionally resorted to, more as an amusement than a task. Exercise, especially walking, to be taken every day as much as could be borne without fatigue, and increased as the strength improved and the indisposition to active exertion was overcome. Cold sponge or towel bath with salt-water, to be used hastily, and a sheet to be thrown round the body to dry the surface and secure immediate reaction—to be repeated once or twice a day. Diet to be plain and nourishing, consisting of digestible fresh meats, poultry, vegetables and wine. Cheerful society. In the way of medicine, a blue pill to be taken twice or three times a week until obvious biliary secretion was produced, then less frequently, or suspended entirely.

As a tonic laxative.

R.	Carb. Ferri, - - - - -	3ij.	
	Pulv. Cinchona, - - - - -	3i.	
	“ Rhei - - - - -	3ij.	
	“ Sem. Card - - - - -	3ij.	M.

This compound to be infused in a quart of port wine, with the fresh juice of three lemons added to it. Of this tonic a large table spoonful poured off without shaking to be taken three times a day.

This course of treatment was continued several weeks with decided benefit. Walking over the same grounds in the country for exercise soon became void of interest and amusement, and was so much interrupted by bad weather, that it failed to afford the benefit desired. For the purpose of obtaining regularly and certainly, the amount of exercise necessary, she was induced, as a means of exercise better than the slack rope, calisthenics and all such expedients, to resort to the big wheel. This not only employed the mind but exercised the body and limbs, and was found to do admirably well.

The tonic was occasionally changed from the wine infusion to a pill composed of

R	Sulphas Ferri,	3ij.
“	Zinci,	3ss.
	Etra. Gent.	3j.
	Pulv. Rhei	3ss.
	M. Pil. No. LX.	

One pill three times a day.

Under this course of treatment, her health was gradually restored—she married and became the mother of children.

Case 2nd.—Miss J., aged about 15 years, slender and delicate person. About the age of 14 she commenced to menstruate. The

discharge was small, and continued but a day or two. In two or three months the colored show of menstrual discharge ceased, though the periods were still indicated by head-ache, lumbo-pelvic pain and nervousness. The general health declined—appetite became irregular and capricious, digestion bad, bowels torpid, spirits depressed, indifference to society, indisposition to active exercise, appearance more and more delicate, easily fatigued, complained of fluttering at the heart from exertion, had slight dry cough, &c. Her habits were sedentary—school hours passed by a dull and prosing attention to more studies than healthy vigorous girls of sprightly minds should be taxed with by their teachers. Her hours for exercise and recreation were spent at home in listless, moping, lounging idleness and inaction.

This case indicated natural feebleness of constitution in girlhood, increased by the depressing influence of the unsuccessful mental effort to compass too many branches of study, and by the want of invigorating exercise of body, and the exhilarating influence of cheerful society and a proper amount of interesting studies upon the mind, at the important crisis of emerging from girlhood to the adult condition, with the healthful establishment of its proper developments and functions. This being the case, more depends in the course of treatment to effect a cure, upon a change of the general habits of life, than upon the direct agency and effect of medicine upon the system.

Treatment.—The general, invigorating plan, as to exercise, diet, studies, amusements, cold-bathing, &c., adopted in case first, to be carried out in this case.

R. Quevenne's Iron, 3iss.
 Extr. of Gentian, 3ss.
 Turkey Rhubarb, 3ss.
 M. Pill, No. xxx.

Of these pills one to be taken three times a day, either before or an hour after meals.

In a month there was much improvement. For the purpose of stimulating the lower bowels, and the surrounding ganglia and plexuses of nerves communicating with the spino-motor, and ganlionic systems of nerves connected with the internal genitalia, the tonic pill was changed by adding half a grain of aloes, and half a drop of oil of savin to each pill, so as to make it emenagogue by increasing the pelvic innervation. Under this course her general health was restored, and menstruation permanently established.

Case 3d.—Miss S., from the age of 12 to 15—she was delicate, appetite irregular, imperfect digestion, pale and sallow complexion. Between her fifteenth and sixteenth year there was some menstrual show. This re-appeared at irregular intervals; but her health declined, and she presented a sickly, yellowish, bloated aspect, attended with great lethargy, of body and mind, the menstrual discharge finally ceasing. The general debility increased, so that exercise soon produced accelerated circulation, hurried respiration, and exhaustion. Upon her mother's side of the connection there was a stong scrofulous taint, and this, together with her continuous bad health, and with it a troublesome hacking cough, produced the apprehension of a fixed

decline. In this condition, she yielded to the anxious wishes of her parents, by adopting and carrying out a regular course of diet, exercise, and medical treatment.

Treatment.—The general course of treatment the same as in case second. After the tonic and invigorating plan was continued several weeks, with a blue pill occasionally as an alterative, and her general health was improved; as an emenagogue the following additional pill was given once a day:

R. Aloes, ʒi.
 Squills, ʒss.
 Cantharides, ʒss.
 M. Pill, No. xxx.

These pills to be continued, one every night, until strangury was produced, and then suspended until it was subsided; then repeated again, in addition to the continued use of tonics, until a sufficient amount of innervation and excitement of the uterine organs, to produce the menstrual molimen, was brought about.

By these means, her general health and the catamenial discharges were restored. She married, and has had several children.

Case 4th.—Miss H. She had menstruated from the age of 14 to 16, and enjoyed pretty good health. Her residence was changed from the city of Memphis, which is on a high bluff, to a plantation in the bottom on the Mississippi river. There she had intermittent fever, which produced hepatic derangement, indigestion, and general bad health, and finally a suspension of the catamenia. She was sallow, feeble, complained very much of shortness of breath from exercise, and was greatly distressed by a dry, frequent cough. Her general appearance and the sensible signs indicated Phthisis, in its first stage, as there was slight evening exacerbations of fever and night sweats.

In this condition, at the age of 17, and after she had been for months in bad health, she came back to the city and placed herself under my medical direction. The physical signs, upon careful examination of the lungs, showed that they were not suffering from serious organic disease; but the large and important vital organs—the liver, spleen, stomach, bowels, lungs, and ultimately the uterine organs, were all involved. The engorgement and functional derangement of these organs, produced by the malarial disease, had become permanent, and in some of them organic in some degree. Digestion, assimilation, and nutrition, the blood making and renovating powers of the system, were impaired, and, as a necessary consequence, the blood was thin and imperfect in its healthful elementary proportions, the vital powers were enfeebled, and the functions of the system generally deranged. In this case the vital functions and the general system were deeply and for a considerable time involved, before the reproductive organs responded to their influence, by a cessation of the catamenia.

Treatment.—While her feeble and enæmic condition, which confined her chiefly on her bed, indicated the use of tonics, the general functional derangement and feverish excitement seemed to demand their

combination with alteratives and laxatives. She was, therefore, put upon the following compound :

R Pro. Iod. Hydrarg, Grs. xxv.
 Aloes, soc., ℥iiss.
 Sulph. Ferri, ℥ijss.
 Pulv. Myrrh, ℥iiss.
 Ol. Sab., ℥ts. xx.
 M. Pill, No. xxx.

Of these pills one to be taken three times a day. In a few days their alterative and tonic effect became very manifest in the relief of all the symptoms. By their regular and continued use, in a fortnight she became slightly ptylised.

The pills were then suspended for a time, and the vinous infusion of iron and bark prescribed in case first, was used as a tonic ; the alterative pills first given were occasionally taken in the progress of the treatment, which, however, did not continue very long ; for so soon as healthy action was restored by the alteratives and tonics, her recovery was remarkably rapid. Her strength, healthful complexion, *embonpoint*, menstrual functions, relief from cough, and wonted cheerfulness were all attained in a few weeks.

Case 5th.—Miss C., after having the menses regularly established, and enjoying good health for several years, from the effects of malarial influence, at the age of 20 years, suffered repeated and long continued attacks of intermittent. Ultimately the spleen became enlarged, the liver diseased, the digestion and nutrition impaired, and finally the catamenia suspended. The monthly periods still slightly indicated by pelvic uneasiness, weight, or sensation of bearing down, and an increase of muco-serous secretion, amounting to a mild form of fluor albus. Her general appearance sallow, face bloated, extremities swollen, general aqueous plethora—the *hyperhydramia* of colombat, with inability to bear much exertion.

Treatment.—The alterative and tonic pills given in the fourth case were used until healthy secretion was produced, followed by the other ferruginous tonics, gradually restored her health, the catamenial discharge, and relieved the fluor albus.

Under this class of female diseases, other cases might be cited furnishing a more striking portrait of the varieties of cases, as anemia or chlorosis ; but this paper is already longer than was designed, and these cases embrace the important points of pathology, and the principles of practice intended to be presented.

The review of all my observations and experience of the diseases occurring in the condition of females, which furnishes the first class of cases, confirms the position assumed, that they are chiefly constitutional and functional in their character, and curable by general constitutional treatment.

The other classes proposed to be illustrated by the report and description of cases, in the future numbers of the Recorder, will furnish much more of local, organic disease, and the necessity for local treatment by means of the speculum.

[TO BE CONTINUED.]

ART. XCII.—MORTALITY OF NASHVILLE.

DRAWN FROM THE CEMETERY REPORTS.

(Continued from September No., Page 351.)

TABLE 9.

1837.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	4	3	4	4	2	1	4	3	6	2	4	3	40
White Females.....	3	3	1	1	2	3	2	4	2	3		5	29
White Infants.....	3	2	4	3	1	5	9	11	6	5	6	2	57
Black Males.....	2	2	1	1	3	2		1		2			14
Black Females.....	1	2		1	1	2	2	1	5		2	2	19
Black Infants.....	4	3	4	5	1	2	6	5	4	1	3	1	39
Total	17	15	14	15	10	15	23	25	23	13	15	13	198
Diseases.													
Inflam. Brain.....	1		1	1	2	1					1		7
Apoplexy.....					1								1
Spinal Affection.....	1												1
Consumption.....	2	1	3	1	3	5	1	3	5	1	3	1	29
Croup.....									1	2			3
Whoopingcough.....				2			2	2	1				7
Pleurisy.....		1		1		1						1	4
Cold [?].	1	1											2
Fevers.....	1	1		1	1		2	4	3	3	1	1	18
Liver Complaint.....	1	1					2						4
Jaundice.....				1									1
Bowel Complaint.....						3	7	4	3	1		2	20
Worms.....			1				2	1					4
Abscess.....				1									1
Cancer.....								1				1	2
Measles.....				1									1
Scarlet Fever.....								1			1	2	4
Teething.....								1					1
Childbed.....		1		1	1	1							4
Gout.....		1											1
Rheumatism.....		1											1
Intemperance.....		1	1						1		2		5
Palsy.....	1												1
Dropsy.....	2			1			4		4				11
Suicide.....	1												1
Wounds.....	1	1	1	1	1	1		1					7
Laudanum.....			1										1
Old age.....	1	1						1				2	5
Unknown.....	5	5	6	3	1	5	5	6	5	6	7	2	56

TABLE 10.

1838.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	3	4		1		1	6	5		5	3	1	29
White Females.....	4	2	4		2		2	2	1	1		5	22
White Infants.....	4	3	3	5	3	7	8	10	5	4	4	7	60
Black Males.....	0	2	2	2		1	3		2	2	1		15
Black Females.....	2	1	1	3	3	1	1	2		2	1	2	18
Black Infants.....	2	5	3		4	3	7	7	5	3	2	1	41
Total	15	17	13	11	12	13	27	26	13	17	11	16	185
Diseases.													
Consumption	4	2		1	2	1	4			5	2		21
Old age	1					1				1			3
Fever	2			1	1		4	2	1	1	1	2	15
Dropsy.....	1	1		1	1	2			1	1			8
Stillborn	1	1											2
Jaundice	1												1
Diarrhœa.....	1						1						2
Pleurisy	1					1					1		3
Intemperance		2	3							1	1		7
Accident		1											1
Infla. Bowels.....		1			1					2			4
Worms.....		1											1
Hives		1								1			2
Childbed		1								1	1		3
Cold		2	3										5
Croup.....		3		1					1	1			6
Hydrocephalus		1	2		1								4
Cancer			1										1
Liver Complaint.....				1	1								2
Apoplexy.....				1									1
Rheumatism				1									1
Drowning.....						0	1	1	1	1			4
Summer Complaint							4	3	5				12
Gastritis							1						1
Cephalitis							1	1			1		3
Carbuncles								1					1
Measles								1					1
Scrofula								1		1			2
Inflammation								1					1
Lockjaw.....												1	1
Unknown	3		4	4	5	8	11	15	4	1	4	13	72

TABLE 11.

1339.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	3	6	4	5	4	5	1	3	4	3	1	4	43
White Females.....	1	3	1	1	3	3	4	2	2	1	4		25
White Infants.....	2	3	2	9	2	6	5	8	4	5	1	6	53
Black Males	1	1	3	2	1	1	2	2	1	2	6		22
Black Females		3	4	2	2	2	4	1	3	2	1		24
Black Infants	2	1	5	3	3	2	2	2	5	2	3	3	33
Total	9	17	19	22	15	19	18	18	19	15	16	13	200
Diseases.													
Fever	1	1	1		1		1	1	5	3	4	1	19
Consumption		4	4	3	2	4	4	4	1	1	2	2	31
Accident		1	1		1		1	1			2		6
Dropsy		1	1		1	1	2	1		1			8
Cancer		1				1							2
Apoplexy		2			1								3
Inflm. Brain.....		1										1	2
Diarrhœa		1				2			2	1			6
Cold		1											1
Pleurisy			2						2				4
Sore Throat			1										1
Childbirth			1		2	1							4
Suffocation			1										1
Intusception			1										1
Cephalitis						1	2				1		4
Spinal Disease				1								1	2
Intemperance				1				1				1	3
Croup.....				1		1			1				3
Suicide				1									1
Dis. of the Heart				1									1
Hydrocephalus					1								1
Old age					1				1		1		3
Infla. Bowels.....					1	1	2				2		6
Scarlet Fever		1				2	1	2					6
Convulsions						2	1						3
Worms.....								1			1	1	3
Scrofula								1		2			3
Cramp Colic										1			1
Unknown	8	3	6	14	4	3	5	6	7	6	3	6	71

TABLE 12.

1840.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	3	4	1	1	3	3	6	5	6	3	2	5	42
White Females.....	2	1	3	3		2	2	5	2	5		1	26
White Infants.....	4	3		2	5	7	6	16	9	9	2		63
Black Males.....	3	1	1	4	1	1		2	2	3	2	1	21
Black Females.....	4		3	1	4	1	2		2	1	2	1	21
Black Infants.....	3	3	2	8	5	4	8	3	2	4	3	3	48
Total	19	12	10	19	18	18	24	31	23	25	11	11	221
Diseases.													
Intemperance	2	2		1	2					1		2	10
Worms.....	2	1			1	1	1			2			8
Inflam. Bowels	2			1	1	1		1		1		1	7
Old age	1		1	1	1						1	1	6
Consumption	2	3	4	4		1	4	6	3	2	1		28
Childbed	1						1			1			3
Spinal Affection	1										1		2
Hung	2												2
Croup.....		1										1	2
Cramp Colic		1					1						2
Fever		2	2	4	1	1	1	2	3	4	1	1	23
Accident				1	1	2			1		2		7
Hydrocephalus				1		3	2			1			7
Apoplexy.....					1								1
Cephalitis					3								3
Convulsions					1								1
Colic.....					1								1
Pleurisy						1							1
Diarrhœa						3	6	15	4	3			31
Jaundice								1					1
Inflam. Brain.....							1					1	2
Dropsy							1		1				2
Derangement								1					1
Hip Disease									1				1
Pneumonia.....										1			1
Rheumatism												1	1
Unknown	6	2	3	7	5	5	6	5	10	9	5	3	66

TABLE 13.

1841.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....		3	3	2	2	3	5	4	3	3	3	2	34
White Females.....	3	5	6	3	1		6	7	5	3		1	40
White Infants.....	4	2	3	3	5	11	9	14	9	2	7	9	78
Black Males.....	4	2	2	2	2	3	2			3		2	22
Black Females.....	2	1	1	3	4	2	2	2	1	3	1	2	24
Black Infants.....	2	4	5	6	6	12	7	6	6	6	5	5	70
Total	15	17	20	19	20	31	31	33	24	20	16	21	268
Diseases.													
Fevers	1		1		2	3	5	6	7	3			28
Consumption	2	5	6	2	3	2	1	3	4	2	1	2	33
Childbirth	3		1				1						5
Convulsions	2							1					3
Dropsy	1		1		2		1			1			6
Infl. Bowels	2					2	1						5
Worms		1				1	1	2					6
Rheumatism		1											1
Old age		2		2	1	1	1			1		2	10
Accident		1	1	1				1		2	4		10
Apoplexy		1											1
Pleurisy			1			1						1	3
Scrofula			1				1		1			1	4
Thrash			1										1
Fistula			1										1
Lock Jaw			1										1
Pneumonia.....			1								1		2
Infl. Brain.....				1				3				1	5
Measles				5	4	8	3	1					21
Whitloe					1								1
Jaundice						1							1
Diarrhœa						3	9	11	3	1			27
Dyspepsia						1							1
Syphilis							2						2
Aff. Heart							1	1					2
Infl. Kidneys.....							1						1
Bilious Colic								1				1	2
Croup.....									1		1	1	3
Whoopingcough									2	2	3	4	11
Scarlet Fever										1			1
Splenetis									1				1
Quinsy												1	1
Unknown	4	6	4	8	7	8	3	4	4	6	6	7	67

TABLE 14.

1842.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	1	5	5	2	7		6	5	5	3	2		42
White Females.....	2		4	1	2	3	3	2	4	3	1	3	28
White Infants.....	5	4	3	3		6	6	3	7	4	2	6	49
Black Males.....			3	2	2	2	4	3	3			1	20
Black Females.....	4		1	3	6	2	3	2	1	3	1		26
Black Infants.....	1	3	1	4	2	3	4	3	4	6	7	9	47
Total	13	12	18	15	19	16	26	18	24	19	13	19	212
Diseases.													
Consumption.....	1	2	9	5	8	1	3	1	3	2	3	1	39
Diarrhœa.....	3	1	1	1			1	1					8
Fever.....	1	1			2	1	7	5	4	5		1	27
Dropsy.....	1						1			1		1	4
Pleurisy.....	1				4								5
Infl. Brain.....	1		1	1			1			2		1	7
Croup.....		1							1			4	6
Accident.....		1	1			2		1	1				6
Mumps.....		1											1
Hydrocephalus.....			1										1
Influenza.....				1									1
Apoplexy.....				1				1					2
Infl. Kidneys.....				1									1
Worms.....				1						1			3
Intemperance.....					1	1	1			1			4
Cancer.....					2								2
Toncellitis.....						1		1	1				3
Wen.....						1							1
Infl. Bowels.....						1		1		1			3
Childbirth.....						1							1
Thrash.....							2						2
Infl. Liver.....							1						1
Convulsious.....							1				3		4
Jaundice.....							3	1					4
Scrofula.....							1						1
White Swelling.....								1					1
Cramp Colic.....								1					1
Rheumatism.....									1				1
Mortifi. leg.....									1		1		2
Lock Jaw.....									1				1
Old age.....									1			1	2
Whoopingcough.....										1	1		2
Unknown.....	6	5	5	4	2	7	3	4	9	7	5	10	67

TABLE 15.

1843.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	3	2	5	2	4	2	5	2	2	6	1	8	42
White Females.....	2	2	3	4	1	5	6	8	4	4	1	3	43
White Infants.....	2	3	4	7	2	1	8	15	8	10	6	5	72
Black Males.....	2		4	1	0	2	4	4		1	4		22
Black Females.....	3	4	9	5	3	4	5	2	7	2			44
Black Infants.....	5	4	3	4	4	2	3	7	4	2	3	1	42
Total	17	15	28	23	14	16	31	38	25	26	15	17	265
Diseases.													
Inflam. Naval.....	1												1
Rheumatism.....	1											1	2
Consumption.....	3	2	5	4	3	5	7	7	3	6	2	4	51
Old age.....	1	1	1			1	1				1	1	7
Inflam. Liver.....	1							1					2
Convulsions.....	1	1											2
Inflam. Brain.....	1	2		3				3	1	3	3		16
Fever.....	1	1	1	2			4	3	5	2			19
Uterine Disease.....	1												1
Accident.....	1	3	2	3	1	2	2			1	2	2	19
Croup.....		2						1			1		4
Worms.....		1	1	1					1				4
Childbirth.....		1	1	1		1		1		1		1	7
Pleurisy.....			10	2	1	1						1	15
Scarlet Fever.....			1										1
Intemperance.....			1										1
Lunacy.....					1		1						2
Sore Throat.....					2							1	3
Dropsy.....					1		2						3
Jaundice.....					1								1
Scrofula.....						1	1		2				4
Whoopingcough.....						1							1
Gravel.....							1						1
Diarrhoea.....							4	9	2	2	4	1	22
Measles.....								4	4		1		10
Erysipilas.....								1				1	1
Influenza.....									2				2
Cancer.....										1			1
Infanticide.....											1		1
Tetanus.....												1	1
Unknown.....	5	1	5	7	6	4	8	8	5	10		3	62

TABLE 16.

1844.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	8	5	5	5	2	4	6	6	5	7	6	2	61
White Females.....	3	3	8	7	3	3	4		4	5	1	2	43
White Infants.....	8	5	18	15	9	11	14	4	8	7	5	8	112
Black Males.....	1	3	2	2	3	3	1	2					19
Black Females.....	3	3	5	2	2	2	1	1	2	1			22
Black Infants.....	3	5	6	7	1	7	5	5	7	2	5	4	57
Total.....	26	24	44	38	20	30	31	18	26	22	17	18	314
Diseases.													
Diarrhœa.....	2	1			2	10	6	3	2	3			29
Pneumonia.....	2	3		2									7
Suicide.....	1			1									2
Measles.....	5	4	11	13	5	3							41
Influenza.....	2												8
Old age.....	1		3	1	1				1		1		8
Childbirth.....	1	1		1	1					1			5
Pleurisy.....	1		1										2
Consumption.....	3	5	5	4	3	8	4	2	2	4	4	3	47
Sudden death.....	2		1										3
Intemperance.....	1		1										2
Cancer.....		2											2
Worms.....		1							1			1	3
Accident.....		1	2	1	3	2		1	1		2		13
Sore throat.....		1	3										4
Inflm. Liver.....			1									1	2
Inflm. of the Brain.....			4	1		1	2		2		3		13
Hernia.....				1									1
Scrofula.....				2		1							3
Scarlet Fever.....				1								2	3
Inflama. Kidneys.....				1									1
Convulsions.....				2			1					1	4
Dysentery.....						1							1
Dis. uterus.....													1
Fever.....							6	6	4	2	1		19
Overheated.....							1						1
Whoopingcough.....						2		1	2		4	1	10
Infl. Bowels.....								1	1	2	1		5
Tetanus.....								1					1
Luuacy.....									1	1			2
Jaundice.....									1				1
Fearlet Fever.....									1	2		2	5
Hemorrhage.....						1		1		2			4
Unknown.....	5	5	12	7	5	3	8	2	7	5	1	7	67

TABLE 18.

[illegible]

TABLE 19.[illegible]

TABLE 20.

[illegible]

TABLE 22.

[illegible]

[illegible]

TABLE 24.

1852.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males.....	5	6	9	10	10	8	8	6	4	6	7	6	85
White Females.....	2	4	3	3	8	7	10	4	6	5	4	7	63
White Infants.....	15	15	15	13	17	48	34	28	12	12	8	8	221
Black Males.....	3	3	5	3	7	2		2	3		1	6	35
Black Females.....	3	3	2	2	14	4	5	1		2	9	1	46
Black Infants.....	9	5	5	6	2	15	19	12	6	8	7	4	98
Total.....	37	32	39	37	58	84	76	54	31	33	36	32	548
Diseases.													
Pneumonia.....	2	4	4	3	3		2			2		3	23
Pleurisy.....	2		1		1								4
Consumption.....	7	3	7	4	10	3	8	5		1	11	2	61
Stillborn.....	5	1	3	5	1	3	5	6	2	4	3	2	40
Rheumatism.....	1												1
Intemperance.....	2			3	1	2	1						9
Cholera.....	1				2	6							9
Diarrhœa.....	2				3	8	7	6	7	1	1		35
Old age.....	1	1		1			1	1		1		1	6
Croup.....	1			1					1		1		4
Whoopingcough.....	1						6	2					9
Scarlet Fever.....			2	1	1					3			7
Convulsions.....			3								2		5
Measles.....	1		7	4	11	15	14	6	1			2	61
Fevers.....	1	1		1		1	5	2	1	3	5	2	21
Apoplexy.....	1								1	1		1	4
Childbed.....			1		1				2				4
Tetanus.....			1									1	2
Inflam. Brain.....				1	1	3	2	3	2	3	1		16
Dysentery.....					1	2	2	1	1				7
Inflam. Bowels.....					3		1	1					5
Dropsy.....					1	1		4	1				7
Worms.....						3							3
Sore Throat.....				1				1		1	1		4
Asthma.....								1		2			3
Typhoid Fever.....												4	4
Unknown.....													198

Having completed our Statistics to the beginning of the present year, in our next number we propose presenting such deductions from them as they naturally offer.

ART. XCIII.—REMARKS ON THE EFFECTS OF SLEEP, IN EXHAUSTED STATES OF THE SYSTEM.

By Jno. McCall, M. D. of Utica, N. Y.

I propose making a few remarks, on the present occasion, respecting certain views and practices which have obtained to some extent among physicians, of not allowing such patients as are regarded as much exhausted, from whatever cause, to sleep but a few minutes at a time, from an idea, as they express it, that sleep beyond fifteen or twenty minutes at once, would exhaust and prostrate the vital forces. That such opinions have been entertained by some of our members, I know, and if nurses and other attendants upon the sick are to be relied on in all cases, it is to be feared that they are still put in practice by some of the profession. At least I have been credibly informed that in different parts of our country, some physicians still give directions to the nurses to wake up patients who are in a feeble state, every few minutes, though they may be sleeping soundly at the time.

Several years since, I was called in consultation in a severe case of bilious fever, occurring in the fall season. The patient was a young man in single life, who had been sick some two weeks, and was in danger of having a typhoid form of the disease; he was so reduced in strength at the time as to faint on being raised from his bed. On my second visit, which was in the morning, I inquired of the attendant how the patient had slept during the preceding night. She replied, "pretty well," but remarked that she awoke him every fifteen or twenty minutes. With some surprise, I asked by what authority she had done so; and learned that it was according to the directions of the attending physician, and upon further inquiry I found that such had been the practice enjoined upon the nurse for several days. Regarding such advice as not only singular, but pernicious, I took occasion in the presence of the medical attendant to urge upon the nurse and family the danger of such practice, and advised that the patient be allowed to sleep as long as he wished, even three hours at a time if he could, and that on no occasion should he be again disturbed in like manner. From this time he was permitted to sleep as long as he desired, and often from one to three hours without waking. With careful nursing, strict attention to ventilation and cleanliness, and a mild, supporting course of treatment, our patient gradually recovered, though his convalescence was slow, and it was not until the approach of the cold weather of winter that he fully regained his strength and health. In another instance, where I was called in consultation, the same course had been pursued. The patient was a young lad about 11 years of age, the son of a clergyman, suffering an attack of inflammation of the bowels. He was naturally feeble, and easily prostrated, had been ill six days when I first saw him, and by accident I learned that the nurse and watchers, by direction of the medical attendant, had made it a rule to wake him every few min-

utes. He was petulant, "nervous," as it is called, and easily disturbed by trifling things; his pulse was very frequent, varying from 120 to 140 in the minute, small and feeble, and he was irritated and annoyed by almost everything said or done to him. He was now told and enjoined to sleep as long as he wished, and the nurse was forbidden to wake him, even though he should "sleep hard," to use their own words. "Tired nature's sweet restorer, balmy sleep," was now allowed to do her work "in her dire way," and with the aid of suitable anodynes and soothing remedies, the young patient slowly recovered.

In proof that one or more of our profession in distant States or sections of the country entertain like views, and pursue similar treatment, if such a term is admissible, I may mention the case of a merchant from Michigan, who became a patient of mine while suffering a severe inflammation of the middle finger of the left hand, occasioned by a slight wound received from the point of a needle near the first joint. The gentleman's constitution was a good deal impaired, in consequence of a severe course of fever which he had passed through in the preceding fall or winter. In the relation of his illness to me, he stated that by the advice of the physician who attended him, he was allowed to sleep but a few minutes at a time. On my third visit, I learned that his good young wife had made it a rule to wake him every fifteen or twenty minutes, assuring me that his medical attendant in Michigan had advised this practice. The patient was now told to sleep all night if he could, and his wife respectfully requested to do the same, and thus give herself no further solicitude about his "sleeping too hard." From this time he was allowed and enabled to rest quite comfortably by one or two small Dover's powders in the evening. He is now fully convinced that sleep, even if "hard," is nature's best restorer.

How prevalent these opinions may be, I am unable to say, but I fear there are still a few of the medical profession who entertain them, and it is very certain that in this region such notions too generally obtain among nurses and attendants upon the sick. My object in presenting the subject is to solicit attention thereto, and at the same time to ascertain, if possible, if such practice is ever advisable in the class of patients above mentioned.

Having never seen or heard any good reason given in support of such practice, and being unable to reconcile either with any experience of my own touching the physiological and pathological view of the case, I trust I shall be excused in thus briefly discussing the subject. And in order to find out the truth here as elsewhere (which, by-the-by, is often a difficult matter, and he who asks, *what is truth?* and endeavors to find it by patient thought, and careful examination, is deserving of something more than the sneers and ridicule of the world,) I shall at once proceed to inquire into the condition of the human economy in a state of sleep.

And in the first place—What is sleep? Is it a state or condition of rest of the mind and body, or simply of some portion of the organ-

ism? To arrive at the facts in the case, let us take for an example a person sleeping soundly. All the external senses are more or less locked up—in other words, resting. Neither the sense of vision, hearing, tasting, smelling, nor speech, attend to their respective functions in sound sleep. The muscles of locomotion are all quiet and immovable, and all those parts or portions of the brain and nervous system concerned in thought and feeling, no longer take note of time or circumstances, or the objects of earth or heaven. The individual on awakening can rarely give any account of himself, or what occurred during his sleep. The circulating system with the secretions and the respiratory movements all move onward regularly during such a state, and yet, on awakening, the person is unable to give any account of what passed during his state of rest. And what is particularly worthy of notice, as bearing on this question, is the fact, that the sleeper is generally, if not always, refreshed and invigorated, so as to be ready and willing to resume again his labors of body and mind. How often, too, have we not witnessed the restoration of the poor patient to health and reason, who only a few hours before was perhaps all but exhausted from the dreadful effects of delirium tremens? In this, as in all diseases and affections of the brain and nervous system which eventuate in some form of insanity, *sleep* is the only certain remedy. These statements require no special proof, as they are known to many intelligent persons out of the profession. So long as an individual sleeps well, there is little or no danger of the supervention of insanity. I suppose that all parts of the brain which are concerned in mental manifestations, require rest or sleep, as well as the muscles of locomotion. Not only man, but animals, birds and all living things require sleep. Plants droop and suffer, when deprived of that great restorative principle of nature.

The opinion that sleep of two or three hours' continuance can exhaust the powers of the system when in an enfeebled condition, seems to me unreasonable, and is not founded on any physiological or pathological principle with which I am acquainted. It is a common idea, that the mind may become fatigued, sick or diseased, and that it is never idle or asleep. I cannot conceive how all this can happen to an immaterial thing, which the mind is said to be. It seems to me, that physiological and pathological facts relating to the encephalon can best explain this matter, and one such fact is worth a thousand metaphysical speculations.

And now let me ask, What is the amount of our knowledge on this subject? What do we know of the use or purpose of the brain in health, and what do we know of its pathology? Certainly if we understood its physiology and pathology, we could talk intelligibly upon the great subject of mental philosophy. Have we any system on that subject recognized as sound in all its points, aside from phrenology? And yet who but the medical philosopher should best understand this matter, as, also, the subject of sleep and its effects both in health and disease?

If these remarks should elicit one useful idea in behalf of our noble profession, I shall feel satisfied.—*New York Journal of Medicine and the Collateral Sciences.*

ART. XCIV.—REPORT OF CASES IN PRIVATE PRACTICE.

By Dr. WM. F. BARR.

D^r. F. A. RAMSEY,

My Dear Sir:—Cases frequently occur in the practice of physicians, which, if reported, might be of use to other members of the Profession. Entertaining this opinion, I have concluded to furnish you with some cases for the Southern Journal of Medical and Physical Sciences.

Yours truly,

WM. F. BARR.

CASE 1.—*Polypus of the Uterus, and Ulceration of the Cervix Uteri*
Mrs. R——— : I was called to see this lady, and obtained the following description of her case : Pain in the head, shoulders, arms, sides, back, hips, groins, and legs ; nervousness ; palpitation of the heart ; pulse quick and frequent ; skin hot and dry ; tongue slightly furred ; bowels disposed to costiveness ; menstruation regular ; leucorrhœa ; a corded sensation around the waist ; appetite deficient ; hemorrhage from the uterus, but not profuse ; tenderness upon pressure along the course of the spinal column.

Toucher.—Cervix uteri enlarged, and the os tincæ dilated. Upon introducing the finger into the uterus, felt a polypus about the size of a hen's egg attached to its fundus.

Speculum.—Cervix uteri ulcerated.

Treatment.—Not being better prepared, and being some distance from town, I determined to endeavor to remove the tumor by avulsion and torsion, the index and middle fingers being the instruments used. By careful efforts, I succeeded, the operation being followed by little hemorrhage. In a few weeks I commenced the treatment of the ulcerated cervix uteri, which I succeeded in curing by proper *local* and *constitutional* treatment. I cauterized the ulcer with the acid nitrate of mercury, nitrate of silver, and caustic iodine, every 8, 10 or 12 days, according to circumstances. When last heard from, the lady was in the enjoyment of fine health and spirits.

CASE 2.—*Occlusion of the Cervix Uteri, during Pregnancy.*—Mrs. N——— : The husband of this lady came for me in haste, informing me that his wife was in great pain, and probably would give birth to a child before we could reach his house, six miles distant. When I arrived at the house, she was in great agony. The pains were very severe, frequent and regular. At the first examination, I could not

find the mouth of the womb ! and failed to do so for some time ! But after the uterus had passed the superior straight, and descended into the cavity of the pelvis, I discovered that the cervix uteri had dilated about the size of a half dollar, but that part of the os tincæ next the *uterine* cavity had closed or grown together. If the reader will think of a drum-head (the drum projecting beyond the head, and it very tense,) he can form a correct idea of the condition of the mouth of the womb. The woman was suffering greatly, and every pain seemed as if it would rupture the uterus. In this situation I had to act, and upon examining my pocket case, found myself without a suitable instrument, with which to puncture the membrane which closed the os. Fortunately the nails upon the thumb and forefinger were pretty long. I made them sharper than usual, and converted them into a pair of *cutting forceps*. As the pains subsided, the membrane relaxed, I then caught it between the nails, and continued *cutting* until I succeeded in making a small opening—this process was continued until the os tincæ was completely opened. The lady felt but little pain on account of the operation. In a short time after I succeeded in making the opening, the mouth of the womb dilated, and the child was born. The lady afterwards did as well as usual.

CASE 3.—*Partial Atresia of the Cervix Uteri*.—Mrs. A—— : This lady was affected with a complication of diseases—chronic pneumonia, ascites, and ulceration of the cervix uteri. Upon examining the cervix with the speculum, the os tincæ was found nearly entirely closed. With a probe, I discovered a small opening on each side of the adhesion. With a blunt pointed bistory, I opened the os tincæ to its proper size. The lady is now nearly well of all her diseases.

CASE 4.—*Profuse flow of saliva*.—A messenger came for me to visit a servant girl of ———, who, he said, was “spitting herself to death.” Upon my arrival, I learned that the girl had been spitting profusely for several days. I considered the cause to be *pregnancy*. Yet the girl had become so much debilitated, that the case demanded relief. I gave astringents, and mild cathartics, and applied sinapism to the epigastrium.

Upon my second visit, which was in a few days, I found that the patient had not been relieved. I then prescribed Tamin, in doses of two and a half grains every half hour, hour or two, according to circumstances. A few doses accomplished a cure, and the girl is now doing as well as females generally do in her situation.

CASE 5.—*Anasarca of the inferior extremities*.—This case of Dropsy,

followed an attack of fever and rheumatism, on account of exposure. The legs of the man swelled to such an extent that the skin burst in several places. When first called to see him, I gave a purgative of calomel and ipecac, to be followed by a strong decoction of ragweed and parsley root, until I could visit him again. Upon return visit, found him better, and prescribed the following mixture, as given by Eberle.

R Cream Tartar, - - - - - ʒjss.
 Sulph. Potassæ, - - - - - ʒss.
 Pulv. Scil. Marat. - - - - - ʒij.
 Tart. Antim., - - - - - gr. ij.

Mix—dose, teaspoonful four or five times daily. Under the use of this mixture, the patient recovered in eight or ten days.

CASE 6.—*Diarrhœa*.—I was called to a family in which several of the members had diarrhœa, and prescribed the following, as given by Dr. James Rogers, in the "East Tennessee Record of Medicine."

R Diluet. Sulph. Acid, - - - - - ʒij.
 Comp. Tinct. Cardamon, - - - - - ʒij.
 Water, pure, - - - - - ʒvss. M.

First dose, an ounce, to be followed by half ounce dose after each operation, or every four or six hours. I find this prescription an excellent remedy for Diarrhœa, and have often prescribed it for the last two summers.

CASE 7.—*Dysentery*.—Mr. D., age 70, had a violent attack of Dysentery. I endeavored to relieve him, after having evacuated the stomach and bowels with castor oil, with anodynes and astringents. These failed, although used for several days. I then gave him calomel in twenty grain doses until the discharges became dark and fetid. In a few days he was convalescent. I have made the same prescription for male and female, old and young and have never been disappointed in accomplishing the object desired.

CASE 8.—*Puerperal Convulsions*.—I was sent for to see Mrs. B., the messenger informing me that she had convulsions. Upon my arrival at the house, I found a well-informed midwife, who had bled the patient freely, and gave her a dose of calomel and jalap, which had operated several times. I cupped along the whole course of the spinal column, and left a blister to be applied on the nape of the neck. In a day, I was again sent for. I took with me a vial of chloroform, and so soon as I entered the house gave the patient a teaspoonful, and repeated upon the first manifestation of symptoms of a return of the convulsions. The chloroform, thus administered, cured her, and in about two weeks, she was delivered of a still-born child.

CASE 9.—*Infantile Convulsions*.—J. D., age 5 years, had been subject to convulsions. To this child I administered chloroform by inhalation. In a few seconds the convulsion was checked, and the little sufferer has been pretty free from them since.

CASE 10.—F. D.—I was called to see this little child, aged 2 years. she was attacked with a violent convulsion, whilst I was examining her condition. Having some chloroform with me, I administered it immediately, by inhalation, and in few seconds the convulsion was cut short. The child has not had one since.

Chloroform.—Professor Horsford of Cambridge, in a paper read before the American Association for the Advancement of Science, on the "Fatal effects of Chloroform," detailing various experiments with this anæsthetic, arrives at the following conclusions :

"1st, that good chloroform does not spontaneously change in a period of nine months.

"2nd. That the bad chloroform, containing free chlorine and hydrochloric acid, may be produced by using a bleaching salt of great strength with a quantity of alcohol disproportionately small.

"3rd. That the bad chloroform may be produced by receiving the distillate into water, so as immediately to withdraw the alcohol from the chloroform.

"4th. That the bad chloroform may be produced by passing chlorine directly into chloroform.

"5th. That no formula for its manufacture can be relied upon as a guide, since bleaching salts vary in strength when derived from different factories, and vary with age. In the foregoing experiments the range is from 15 to 30 per cent.

"6th. The quick lime added to the mixture does not promote the economy of manufacture.

"7th. That the chlorine and hydrochloric acid of bad chloroform, as observed by Dr. Dwight, may be removed by agitation with a little alcohol.

"8th. That the ill effects observed in the administration of chloroform are not due to the presence of chlorine as the irritation is such when it is attempted to inhale it, as to prevent inhalation altogether.

"9th. That the ill effects are not due to any poisonous product arising from the action of bleaching salt on the small quantity of fusel oil, in the alcohol employed in the manufacture of chloroform.

"10th. That the ill effects are due to peculiarities of constitution or temperament of some patients, and in a few rare cases to want of attention or judgement on the part of the person administering it."

DEPARTMENT OF CHEMISTRY AND PHARMACY.

ART. XCI.—AMERICAN PHARMACEUTICAL ASSOCIATION.

We have received the published proceedings of the Am. Pharm. Association, which held its second annual meeting, in Boston, on the 24th, 26th August last. We are much pleased at the success which is attending this organization, convinced that great good is to result from it.

Delegates were present from the Richmond Pharm. Soc., Cincinnati Coll. Pharm., Philadelphia Coll. Pharm., N. York Coll. Pharm.; also, there were representatives from Terre Haute, Ind., Memphis, Ten., Boston, Mass., Bennington, Vt., St. Johnsbury, Vt., Portland, Me., Great Falls, N. H., Fitchbury and Newburyport, Mass.

The Executive Committee presented a very able Report, embracing some interesting facts in reference to the present condition of Pharmacy in the United States, and offering important suggestions so as to secure the objects of the association, from which we extract the following :

“1st. To increase the future usefulness of the Association, it is proposed that a system of local secretaryships be adopted, which, in the beginning, may be limited to the larger cities and chief towns, and so distributed over the several States, as to enable the Corresponding Secretary and the Executive Committee to obtain and distribute information in an effectual manner. At first, it is proposed to appoint the local secretaries from Pharmacutists known to reside in the localities chosen; and, afterwards, if more agreeable to the body at large, in each place, the name of a person for Secretary may be suggested by his brethren, as their medium of communication, to be confirmed at a meeting of the Association. We believe that there are qualified persons who have the good of the profession at heart in most of the cities, and that such an organization would greatly increase the power of the Association, in carrying out its disinterested measures for the advancement of Pharmacy.

“2d. It is recommended that the collection and arrangement of the Statistics of Pharmacy, in the United States, be committed to a special committee, properly authorized to act for the Association, in such

manner as shall most effectually and speedily obtain a list of the reputable Druggists and Pharmaceutists in each place; ascertain the degree to which Medicine and Pharmacy are separated; the condition of dispensing Pharmacy; the condition and progress of preparative or manufacturing Pharmacy: the extent to which the apprenticeship system prevails, and whether any attention is given to furnish apprentices with proper books for the study of their business; and finally, whether there is any disposition to organize local societies.

"3d. It is suggested that pharmaceutical education be entrusted to a special committee at the commencement of the session, that they may have time to prepare an address to the Pharmaceutists of the whole country, which shall enter into the practical difficulties which oppose the attainment of pharmaceutic knowledge by assistants and apprentices, point them out, and encourage the brethren to extend reasonable aid to those in their service, both by personal interest, and by providing books and the opportunity to use them—and also, shall recommend attention to the proper preparatory education and mental fitness of apprentices for the responsible offices involved in their duties.

"4th. It is proposed that the *idea* of universally adopting a single name, which shall indicate the qualification for preparing and dispensing Drugs and Medicines, as possessed by thorough-bred chemists and druggists, or apothecaries, be considered, and its propriety decided on. The word "Physician" indicates a person educated to practice Medicine in all its branches; why should not "Pharmacist" define a qualified practitioner of Pharmacy?

"5th. It is recommended that the Association shall advocate the *extensive issue* of a *cheap* and accurate edition of the United States Pharmacopœia—say at the price of seventy-five cents or one dollar. Of the large number of persons who, in this country, lay claim to the names of apothecaries and physicians, a great proportion have never seen the Pharmacopœia as a separate and distinct work, a fact easily understood, when it is stated that but 1500 copies are published in ten years! In many localities, the U. S. Dispensatory is considered to be the Pharmacopœia. Physicians are constantly prescribing medicines under unofficial names, and apothecaries making officinal preparations by foreign formulæ, because, in the Dispensatory, the recipes are all commingled in such a manner as to lead to confusion. This would be prevented, and a greater uniformity of practice created by making the Pharmacopœia, with its clearly defined recipes, the guide at the counter, and in the laboratory, for the officinal preparations.

"6th. We believe that the action of the Association should not be limited to the practical, the ethical, and the educational interests of the profession—should not stop within the limits of self-improvement. American Pharmaceutists owe a large debt to their brethren in Europe, for a constant influx of knowledge, the result of their past and present investigations in Pharmacy and its accessory sciences; and the time has fully arrived, when, as Americans, they should feel bound to render a larger return than individual efforts have hereto

fore accomplished. The Pharmaceutical societies in Europe, offer annually, prizes for the determination of questions deeply interwoven with the practice or science of Pharmacy, and thus elicit valuable accessions to existing knowledge. We believe that the Association is now competent to adopt a course of this kind, as an incitement to dormant ability, and to awaken laudable ambition. At first, if the idea is adopted, the prize should be limited in value, except as symbolic of reward for honorable and successful enterprise.

"To make the proposition clearer, a few questions appropriate for such objects will be instanced.

"*a.* It is conceded that *Digitalis* of American growth, is less active and efficient as an arterial sedative and diuretic than that of English origin. Is this deterioration due to the less abundant formation of *digitalin*; to its modification; or to any other definable cause?

"*b.* What are the impediments, if any exist, to the free circulation of *Colechicum Autumnale* in the United States, so as to preserve its power unimpaired; and is it true that the recent cormus is more active than the same carefully dried, and if so, why?

"*c.* Do *Hyoscyamus* and *Belladonna*, grown in the United States, contain the active principles in the same proportions as the European plants?

"*d.* *Spigelia* is admitted to possess positive anthelmintic power. Does this power reside in a distinct, well defined principle, capable itself of producing the effects of *spigelia*; if so, isolate and describe it?

"*e.* The best essay on extemporaneous Pharmacy, which shall treat of the incompatible combinations most usually prescribed, the best manner of avoiding them, and the most efficient methods of proceeding in effecting the union of substances that are physically incompatible, as emulsions, certain liniments, certain pill ingredients, &c.

"*f.* For the best essay on the identification of volatile oils, when mixed, their preservation, and the actual effects of light and air on them, under the ordinary circumstances that they are kept in the shop, so as to decide the question whether all of them, or only a part, should be kept in the dark, to prevent change?

"*g.* For an essay which shall develop the commercial history of all drugs indigenous to the United States, as *senega*, *spigelia*, *serpentaria*, &c., as regards the manner and places of their collection for the supply of commerce, the annual amount collected, and the channels through which they enter general commerce.

"*h.* For the best essay on the construction and material of pharmaceutical apparatus, including that for evaporation, distillation and solution more especially, as regards economy, convenience and effectiveness; with a view to the ordinary wants of a thorough Pharmacist.

"Such are a few of the questions which might be offered. The nature and value of the prizes, and the local or general invitation to the competition, will require mature consideration, should the idea be adopted.

"7th. An efficient committee might be appointed to inquire into

the nature, extent and locality of *home adulterations*, and propose a remedy.

"8th. Whether it would be advisable to appoint a committee to consider the subject of State and municipal laws in relation to controlling the trade in Drugs and Medicines, and whether such laws would be likely to prove salutary, without oppressing the well disposed Druggist and Pharmaceutist.

(Signed)

WILLIAM PROCTER, JR.,
GEORGE D. COGGESHALL,

On behalf of the Executive Committee."

The Report of the Committee on the Sale of Poisons was as able as it is important. Its length precludes its insertion in this number of the Journal.

The suggestions of the Executive Committee were voted upon

1st. By providing for the appointment of Correspondents in various parts of the Union, with the request that they communicate to the corresponding Secretary matters of interest to the Association.

2nd. By the appointment of a special committee to collect and arrange the statistics of Pharmacy in the United States.

3rd. By appointing a committee to propose an address on Pharmaceutical Education.

4th. The suggestion in reference to the adoption of a definite name for the practitioner of pharmacy was not received.

5th. A resolution was adopted requesting the committee of Revision and Publication of the United States Pharmacopœial Convention of 1850 to issue a cheap edition of the Pharmacopœia, so as to enable every apothecary and physician to possess a copy of that code and thus familiarize the classes of persons for whose government it was created with its real nature, extent and requirements.

6th. The subject of Prize Essays was referred to a special committee to report at next meeting.

7th. The proposition in relation to home adulterations was adopted, and on motion of Dr. C. B. Guthrie it was resolved to appoint a committee of three to inquire into the nature, extent and locality of home adulterations and propose a remedy.

The following resolution offered by Dr. C. B. Guthrie is of interest at the present time, as a manifestation that others feel the necessity of arresting the baneful tide of quackery as well as our medical friends:

"*Resolved*, That this Association recommend to each State the enactment of such a law as shall require every person engaged in the manufacture and sale of any patent or secret medicine, designed or recommended for exhibition as a remedial agent, to file in the proper office of each State wherein such remedy is offered for sale, a full and

complete formula of such remedy, and that under oath ; and, moreover, to require such manufacturer so offering goods for sale or agency or otherwise, to conform to such State laws as regulate the levying of tax or excise upon all who engage in the business of buying and selling merchandize.

"After further discussion the following was offered by Joseph Laidley :

"To strike out all after the word 'Resolved,' and insert, 'That the American Pharmaceutical Association, believe that the use and sale of secret or quack medicines is wrong in principle and is in practice attended with injurious effects to both the profession and the public at large, and believe it to be the duty of every conscientious druggist to discourage their use.

"'Resolved, that this Association earnestly recommend to our pharmaceutical brethren to discourage by every honorable means the use of these nostrums ; to refrain from recommending them to their customers ; not to use any means of bringing them into public notice ; not to manufacture or to have manufactured any medicine the composition of which is not made public ; and to use every opportunity of exposing the evils attending their use, and the false means which are employed to induce their consumption.'

"The question being divided, the motion to strike out all after 'Resolved,' was put by the Chair, and carried by a vote of 13 to 8.

"The Resolutions being then put to vote were adopted by a vote of 13 to 5."

In the election of correspondents agreeably to the resolution adopted, Dr. Richard O. Currey of Nashville, and Dr. Benj. R. Strong of Knoxville, were elected for Tennessee.

The convention finally adjourned to meet in Cincinnati Ohio on the last Tuesday in July 1854, at 11 o'clock A. M.

LIST OF SPECIAL COMMITTEES, TO REPORT JULY 27TH, 1854, IN CINCINNATI.

1st. To collect and arrange the Statistics of Pharmacy in the United States, as suggested in the Executive Committee's Report.

C. B. Guthrie, of Memphis, Ten. *T. B. Merrick*, of New York.

W. B. Chapman, of Cincinnati, *Joseph Laidley*, of Richmond, Va.

H. T. Cummings, of Portland, Maine.

2d. To prepare an Address to the Pharmacutists of the United States on the subject of Pharmaceutical Education, as suggested in the Executive Committee's Report.

William Procter, Jr., of Phila.

John Meakim, of New York,

Edward Parrish, of Phila.,

David Stewart, of Baltimore.

3d. To report on the suggestion in relation to appropriate subjects for prize essays.

C. Augustus Smith, of Cincinnati, *T. H. Barr*, of Terre Haute, Ind.

S. M. Zachrisson, of Richmond, Va.

4th. To consider and report on the subject of Home Adulterations.

C. B. Guthrie, of Memphis, Tenn. *G. D. Coggeshall*, of New York,
C. Augustus Smith, of Cincinnati.

5th. To inquire into the expediency of obtaining a form of Certificate of Membership for the use of the Association, with such insignia and device, or otherwise, as shall, in their opinion, be suitable.

Andrew Geyer, of Boston, *Charles Ellis*, of Philadelphia,
Joseph Laidley, of Richmond, Va.

6th. The report of the Committee on Quack Medicines was referred to the Committee on Pharmaceutical Education, (No. 2,) as above.

7th. To consider that part of the report of the Committee on the Inspection of Drugs relating to the fixing of standards of quality for those Drugs capable of it, together with the appropriate tests for detecting adulterations when practicable, the following committee was appointed with authority to invite the co-operation of the several Colleges of Pharmacy, by vote of the Association.

William Procter, Jr., of Phila. *George D. Coggeshall*, of N. Y.

8th. The same Committee were also directed to report on the late Circular of Instructions from the Treasury Department, such amendments as they may deem necessary.

9th. The Committee on Pharmaceutical Education, (No. 2,) as above, were instructed to report on the expediency of endeavoring to obtain such Congressional action as would compel all Special Examiners of Drugs and Medicines to be either Graduates of Pharmacy, or to receive certificates of qualification for such office from some College of Pharmacy recognized by the Association.

DEPARTMENT OF DENTAL SURGERY.

ART. XCVI.—MORTALITY OF CHILDREN FROM IRRITATION OF DENTITION.

In the July No. of the Journal, we took occasion to refer to an article of Dr. J. L. Levison of England, upon this subject. We here give a synopsis of some very interesting cases, which he furnishes in corroboration of his conclusions :

“In irritation from teething,” he says, “three important systems are implicated, the nervous, vascular and mucons ; and also, under certain circumstances, the dermoid tissues are sympathetically affected.”

THE NERVOUS SYSTEM.—He gives cases which show that “the convulsions from teething are not confined to the twitchings of the facial nerve, but in many instances, there is involved, by reflex, nervous action, the cerebral and spinal systems.”

A little boy, about 21 months old, who had not cut a single tooth, was the subject of fits, coming on at all times, and occasionally remaining for hours, attended with a *tetanic* state of the muscles, protrusion and immobility of the eyes, and involuntary action of the rectum and bladder. A fit occurred during the time of consultation of a most frightful character. In this condition of things the lancet was resorted to, cutting down upon every tooth in both jaws. Upon the instrument's touching the first tooth, the fit ceased and there was no repetition of the convulsions. When the Dr. last saw the patient, at the age of ten or twelve years, he appeared then to have a dullness about the brow, dull, staring, projecting eyes, and a lack of intelligence in his expression, evincing that although the operation had been beneficial, he had prior to it received some cerebral injury. In the majority of such severe cases, the sufferers have been of the nervobilious temperament. The Doctor's practice is to cut down on a tooth whenever it is causing such local disturbance, as sleeplessness, attended with constant moaning, even should there not be any symptoms of nervous or cerebral irritation, as the most conservative plan.

A case is next detailed where *hydrocephalus internus* was induced by the irritation of teething. The parents, who were of highly nervous temperaments, had on previous occasions, lost their children during dentition. About the sixth month, their little son, who had hitherto every appearance of good stamina, cut two lower teeth, which

caused much disturbance to his health, with quick pulse and feverish symptoms ; but he was relieved of the worst form by the use of the lancet. When nine or ten months old, he evinced symptoms of *strabismus*, and Dr. Levison urged lancing the gums to prevent worse consequences, but the mother "peremptorily refused, 'as the child was feverish,' &c. Within a few days, acute symptoms of cerebral disease were indicated, from the distorted squint, and when her usual attendant was summoned, he admitted that there existed *hydrocephalus internus*, and although he adopted an active practice, yet, nevertheless, this lovely boy died within a week of my first seeing him." The same parents had afterwards a daughter, which by the proper care, grew up to be "a very fine intelligent girl, with a nice young sister as a companion ;" but the Doctor remarks that "this child suffered great disturbance of health during her first dentition ; and if the effects had not been constantly counteracted by the *hydrarg. cum creta*, and the free use of the lancet, there is no doubt but that she too, would have gone 'to that bourn whence no traveler returns,' and the opinion of hopelessness in the parents would have been established, that owing to some mysterious hereditary tendency, or some apparent want of *stamina*, they would never rear a family." He adds that he has repeatedly been called to lance the gums of a family whose father had epileptic fits, with strong maniacal and hysterical symptoms. In one case where this had been omitted with one of the children, the child had severe fits, but the lancet saved a repetition of them.

THE VASCULAR SYSTEM.—Dr. L. mentions that fevers are often induced by dentition. "When this vascular disturbance is confined to the buccal cavity, the inflammation is often acute, and ultimately induces suppurative process." A child about a year old was suffering from dentition, and at the time of consultation was screaming bitterly. "On looking into his mouth, there was evidence of suppuration over one of the lower molars, and the area which covered the incisors had the blood vessels so much injected as to form a distinct boundary space between the vascular surface and the portion which indicated a normal condition." The affected gums were lanced and the vessels scarified. On opening the abscess near the molar, nearly a tea-spoonful of yellow puss escaped. The child was immediately easy, soon fell asleep, and by the next day was as merry as ever. A few years previous to this the eldest daughter in the same family had had a fit when not quite two years old, and had been treated for ingesta or worms. When examined she was suffering from the last molars of both jaws, at which time the third fit had just occurred. "Her mouth was hot and vascular, particularly over the fast bound teeth, the gums over which were swollen, and these I freely lanced, feeling the deep seated teeth. And so conscious was the little lady of the benefit, that she put up her mouth to kiss me. The true source of the sympathetic disturbance of the brain, (which having been, in all probability, hereditarily predisposed to be irritable,) was induced by the constant pressure of the teeth on the nervo-vascular mass, as the proximate cause, for when these were relieved, she never had another fit."

"THE MUCOUS SYSTEM.—Ever since Mr. Goodsir, of Edinburgh, has so ably demonstrated that the germs of rudimentary teeth were mucous follicles, practitioners have turned to account this important fact, viz., that, when in teething there are severe attacks of diarrhœa, that this arises merely from sympathetic disturbance of the mucous surfaces of the whole or part of the intestinal canal, and is therefore a consequence of dental irritation. The following will illustrate this theory : Mr. and Mrs. S——, of New York, visited England during the summer of 1852, with two little daughters ; the eldest about fifteen to sixteen months old, and was suffering from tardy dentition. When they came to Brighton, this child was much reduced, with constant watery and mucous evacuations. A London practitioner had given her a chalk mixture. When I saw her, she was very thin, very fretful and highly irritable ; without any appetite, and with a furred tongue ; and appeared from these united causes, to be likely to sink from mere exhaustion. On examining her mouth, I told Mrs. S—— that all this disturbance of health was occasioned by her teeth, and that if the gums were well lanced, she would be physically and mentally better. And she being a very sensible lady, immediately requested me to operate, which I did effectually. The diarrhœa ceased—the secretions soon became normal—her appetite returned, and she became cheerful, and daily gathered strength. But the disturbing cause had existed so long, that it was weeks before she entirely recovered.

"I am tempted to quote another case : Master N——, a boy about twenty-one months old, gradually sunk. His body wasted, and his pulse was so feeble, that he lay for hours in a state of *coma*, with the breathing scarcely apparent. When I was asked to see him, he seemed in *articulo mortis*, so little did he resemble a being endowed with life. His face was an ashy whiteness—the eye-lids were closed—the extremities were cold, and the whole body felt clammy. He neither moved, nor gave any positive signs of animation. To my inquiries about his teeth, I was told that he had only four or five, that his illness commenced with pain and heat in the mouth, that Dr. — had lanced his gums, and that though somewhat better afterwards, he gradually sunk and was a mere living skeleton.

"As my own opinion still was that all the symptoms resulted from dental disturbance, arising, in the first instance, from the debility of his system, which latter circumstance had retarded the development of the teeth ; and in consequence of this a still further disturbance was induced, affecting the brain and spinal nerves, and indirectly tended to implicate the organs of nutrition. As there seemed to the suffering parents no chance of their child being saved, they placed him entirely under my treatment, without even a forlorn hope that any advantage would result.

"I took the poor emaciated creature across my lap, and opened his mouth. There was a great fester, the gums being thick, red and swollen. I used the lancet freely, feeling every tooth which required this important aid. The child opened its eyes and smiled faintly. In

an hour or two afterwards, he was sufficiently restored to take some light nutritious food with an apparent relish. After this he rapidly recovered, and is now strong and healthy, having, when I saw him last, attained the age of five years."

ART. XCVII.—CASE OF REPRODUCTION OF THE INFERIOR MAXILLARY BONE.

In the *Am. Jour. Dent. Science* for July, Wm. Jones, M. D., of Kenton, Ohio, relates the case of a lady of thirty-five who for some five years previously had been the subject of severe salivation, resulting in necrosis of the inferior maxillary bone.

"On close examination" he says "I perceived there was a complete necrosis of the horizontal portion of the inferior maxillary bone on both sides of the face, from a point as far back as the sapientiae molares, involving the body of the bone from the angles forward. This portion of the jaw was in a state of nudity, wholly divested of the periosteum, of a dark color, cracked and fissured in almost every direction, and ready to fall to pieces upon the slightest touch. It was held together by the arch of the teeth still present, having a slight hold in the alveoli, and kept in their position by many turns of wire which had been ingeniously interwoven among them by some person for this purpose; the pressure of the cheeks and tongue afforded some lateral support to the crumbling mass. A little force applied under the chin would displace all by raising it up, and the same exerted by the application of the finger farther back under the jaw, on either side, gave the clearest evidence that the dead bone was already detached from the living portion, consisting of but little more than the ramus, with the condyles and coronoid processes. She assured me, that the finger could be passed under the bone within the mouth without meeting resistance from its parts adhering at any point, and that the whole might be lifted out of the mouth together, without the necessity of an operation of any kind, which I thought might be the case.

"So great was the constitutional deterioration, that her sight, hearing and other senses were much obtunded, and the intellectual faculties almost reduced to a blank. The disease was at this time passive, unattended with pain or other inconvenience than was inseparable from the continued flow of saliva, which was excessive still, and the disgusting embarrassment consequent upon the necrosis. I directed an occasional draught of lime water, with the free use of tonic bitters and liberal diet, as the best means of promoting her general health and of enabling her to bear up under the loathsome burden until time should relieve her of it. It is a remarkable fact, that though it was apparent both to herself and me, that the rotten mass with its filthy

odor might have been removed without pain or difficulty, and replaced by some less offensive substitute, which I suggested to her at the time, she clung to it with the utmost tenacity, and dreaded the loss of it exceedingly, both on account of the little service it yet afforded her in speaking and the management of her food, and the deformity which might be apprehended from its removal, without the certainty of a successful substitute. Her health was somewhat benefitted and gradually improved, and time brought away the *reluctant jaw* with its appendages.

"Some three or four years had elapsed when I saw her again, and at this time the dead bone and teeth were entirely gone, the face was kept in shape by means of a roll of linen or cotton rags of sufficient size and firmness to keep the chin at a suitable degree of forward projection, rising high enough to keep the lip from falling in, and the tongue from protruding out of the mouth. Thus she contrived to get on for some years longer, when she removed and came to the western part of this (Hardin) county, where I at that time practiced medicine, which afforded me frequent opportunities of seeing her. Observing a very great change in her appearance for the better, I endeavored to learn by special inquiry how far her loss had been repaired. I found she yet employed a small linen or cotton roll to aid in supporting the cheeks and lip, but the chin was fairly maintained in place at the natural degree of projection forward, by a *NEW MAXILLARY BONE*, or something acting as an equivalent. I thought it true bone, answering in firmness, strength and general conformation to the original jaw, appearing to have the same muscular attachments, and fulfilling its uses, so far as this could be done without the teeth. It approximated the natural one in shape and dimensions, after the teeth and alveolar process have been removed as in aged persons, but was roundish and not more than three-eighths of an inch in thickness, about midway between the angles and chin. It was duly invested with the proper coverings."

It was thought that the new bone commenced forming at the chin and at the extremities of the old jaw, meeting in the centre upon both sides, where it was slender and less perfectly formed. "It does not appear to have been the spurious offspring of a hot and hasty freak of nature, but the legitimate produce of a *cool, deliberate well intentioned* resolve and purpose, pertinaciously adhered to until accomplished;" and "it was endowed with the elements of vitality, and possessed vital and functional relations to the neighboring parts, which were happily maintained through the remainder of life."

ART. XCVIII.—REWARD OF PROFESSIONAL MERIT ABROAD.

We find the following sketch of Dr. Evans in a late number of the *American Traveller*, (Boston) from a correspondent of that paper. It is a source of pride and pleasure to witness the appreciation every where beginning to show itself for excellence in our profession, and it is additionally gratifying to see American Dentists receiving such evidences of favor from the most highly cultivated European nations.

We hope the example of Dr. E. will not be lost upon the young men engaging in the profession, but that it will stimulate to that unwearied study and application which is the only surety of eminent success. Perhaps the most important element of Dr. E's. success is to be found in a thorough *preparation* for the duties he was to assume. Although possessed of natural mechanical genius, and trained by his former business to expertness in the use of tools, the working of metals &c., he did not regard the time spent in the acquirement of a regular medical education thrown away, but aware the profession of his choice is a branch of the Art of Medicine, he very properly resorted at once to the best means of acquiring a comprehensive knowledge of the principles upon which the latter is based ; and it is a significant fact that without such knowledge, from whatever source derived, few indeed, have arisen to any enviable destination in our profession.

CHEVALIER EVANS.

Among the list of passengers which sailed in the British steamer *Europa* on the 14th inst., is the name of Dr. Thomas W. Evans, formerly of Philadelphia, but now on his way to Paris, where Dr. Evans is at the head of his profession as a Dentist. But a few years since he was an apprenticed boy, in the shop of a silver-smith and jeweller in Philadelphia, but possessing peculiar mechanical skill, he became noted in his business, a branch of which was the manufacture of surgeon's instruments. While thus engaged, he conceived the idea of studying the profession of dentistry, which he did, while yet an apprentice, and also pursued the study of medicine in the University of Penn.; and at the age of 20 graduated. After this he took a trip south, into the States of Maryland and Virginia, pursuing his profession as a dentist. He then settled in the city of Lancaster, Penn., where he practiced in the first families.

During his residence in Lancaster, at an exhibition at the Franklin Institute, Philadelphia, in the fall of 1847, he exhibited 12 plugged teeth as specimens of his skill. Dr. John T. Clark, from Paris, formerly of Philadelphia, seeing those teeth, and being much pleased with the execution, asked to be introduced to Dr. Evans, when he proposed

that he should go to Paris and pursue his profession, assuring him that in a few years he would realize a fortune. And, as an inducement, said, should he not be satisfied, he would pay the expenses of himself and wife, there and back. Dr. Evans immediately concluded to go ; made preparations, and embarked accordingly ; and has been eminently successful in his profession. He enjoyed the friendship and confidence of Louis Phillippe, while yet King of France, and by whom he was knighted. Since the elevation of Louis Napoleon he has conferred on Dr. Evans signal honors.

A late number of the *Moniteur* announces that the Emperor of the French has bestowed on Dr. Thomas W. Evans, formerly of Philadelphia, but now of Paris, the cross of the Legion of Honor, as a national acknowledgement of his professional eminence. It is supposed that the Doctor is the first and only Dentist ever honored in this way, and that there are probably not more than half a dozen members altogether, who have won the cross, as he has, by professional skill and scientific knowledge, before the age of thirty. Military men are frequently decorated, on light grounds, and so are politicians, party editors and ministers, but such cases are extremely rare in the ranks of professional and scientific men. A Paris correspondent of a New York paper says that in the case of Dr. Evans, the usual mode of conferring the honors by brevet from the ministers was departed from. At the request of the Emperor, he went to the palace of St. Cloud to wait on him. He was shown into a room where the Emperor soon joined him. After expressing his high sense of the professional services rendered to him personally, and thrusting into his hands a number of bank bills, Louis Napoleon invited him up stairs, on the pretext that the Empress wished to see him. Stopping in a small study near the apartment of her Majesty, the Emperor took the cross from a desk, with the remark, "Now you shall receive something you will appreciate more than any thing I can give you. It is the national recompense for the honors you have conferred upon your profession in France ; and it gives me great pleasure to be the means through which it is conveyed. And furthermore *je suis reconnaissant*." The Empress then came in, and said that she had asked of her husband the pleasure of being the first to offer the new Chevalier her congratulations. She spoke in English, using the language as fluently and correctly as her native tongue.

This testimonial to the standing of Dr. Evans in France is only one of many, for he is Chevalier of other orders, among them of the national order of *St. Saviour* of Greece, and has had magnificent gifts from the royal houses of Bavaria, Naples, Prussia, Piedmont, &c., as also from the Duchess of Orleans, and others of princely rank. He has in his possession nine different diplomas ; in fact, he is considered indispensable by those who can afford to have the best professional attendance Europe can supply. Perhaps no American in Europe is more highly esteemed by his countrymen than Chevalier Evans. During his residence of six years in Paris he has invested in America thirty thousand dollars, and while making recently a short stay with

his parents and friends, he invested fifteen thousand more. He supposes that his profits this year will not be far from fifty thousand dollars. He has just reached the age of thirty, and is another illustration of what a young man, by the blessing of heaven and his own exertions, may attain.—*Traveller*.

BALTIMORE AND NEW YORK COLLEGES OF DENTAL SURGERY.—Since our last we have received the Annual Announcements of these Institutions for the session of 1853 '54.

It is gratifying to witness the earnest endeavors recently manifested by our Dental Colleges to accommodate themselves to the increasing wants and demands of the profession. Within the past two years greater efforts appear to have been made to enlarge and improve their system of instruction than at any previous period. Additional chairs or lectureships have been created, a course of private pupilage strongly recommended, and in one instance made indispensable to graduation, and other means provided for making the course of instruction as thorough as possible within the prescribed term.

From the Announcement of the Baltimore College we notice most of the chairs have been modified, at least nominally. Thus in place of "Special Pathology and Therapeutics" we find "Principles of Dental Medicine," a name perhaps more significant and appropriate than the first. The other changes have likely been made in order the better to distribute and facilitate the labors of the Professors. Arrangements have also been made for a "Practical Course" of instruction at the Infirmary of the College during the summer months, and it is to be hoped that every student not having the advantages of private pupilage will avail himself of the substitute thus afforded.

Convinced of the necessity of practical training beyond what it is possible to acquire during the lecture terms at the colleges, we have heretofore urged the importance of requiring, in addition to the ordinary course, a term of pupilage under a practitioner, in order to "constitute the student a proper candidate for a degree in dental surgery," and that to answer "in lieu of other private tuition, the dental laboratory and infirmary of the colleges be kept open to students during the year, under the supervision of one or more of the dental Faculty." Since, then, we are pleased to see that one dental college has declared the absolute necessity of such additional instruction by making it a condition to graduation, and that another has not only

acknowledged its importance but made provision for imparting it in the manner indicated. If the one at the very outset of its career could venture to make the additional requirement, might not the other in its maturity and prosperity demand as much, especially after furnishing the means by which the requisition may be readily complied with?

The New York College, located at Syracuse, appears to bid fair for a prosperous course the coming session, which is its third. Its Faculty consists of five Professors, a Teacher of Block Work, a Demonstrator of Operative and Mechanical Dentistry, and Demonstrator of Anatomy. Several branches are mentioned in its curriculum which are not specified by the other schools, such as Dental Technology, Comparative Dental Anatomy, Microscopic Anatomy, and General Principles of Surgery.

This institution follows the example of those at Baltimore and Cincinnati, in deriving a portion of its Faculty from the Medical Profession, and very properly, considering the obvious advantages of having the medical branches taught by those who are practically conversant with them.

HYGIENICS OF TEMPERANCE, or *Water and Alcohol contrasted on Lawyers*. Dr. Saml. A. Cartwright in an article under this head in the Boston Medical and Surgical Journal remarks of ether (the oxide of ethyl) and alcohol, (the oxyhydrate:)

"The vapor of the oxide of ethyl, when breathed destroys the will and renders the body insensible to impressions: but it should be remembered that all spiritous liquors contain a greater or less quantity of ethyl in the form of an oxyhydrate, the vapor of which effects the will and the senses, rendering those who come within the sphere of such exhalations, less competent to govern their passions and inclinations. In other words the atmosphere, within and around those places, where spiritous liquors are retailed, contains ethyl—a substance palsyng the will and depriving man of his free agency. The contaminating influences of an atmosphere containing ethyl cannot be avoided without avoiding the places charged with it. A few have such strong wills as not to be sensibly influenced by it, but in the great majority of mankind the will is so weak as to be affected by the smallest quantity in the air. Moral persuasion is lost upon such. Indulgence in drinking creates a greater susceptibility to such influences, until those, who see their error and wish to reform, are unable to

do so. The smallest taint of ethyl in the air, from some neighboring distillery, or retail liquor shop, will cause them to break the most solemn vows; and often with tears in their eyes to be led, against their better judgement, to seek the cup which they know is causing their ruin."

"As it was with the doctors of Natches and vicinity, so has it been with the lawyers. The lawyers of that city and vicinity, thirty years ago, who were in the habit of using alcoholic beverages in the place of plain water between meals, like the doctors who followed the same practice, are all dead long ago. There is not one left. Even to bring down the time to twenty years, there is not one left, while of the temperate lawyers of the same locality, from twenty to thirty years ago, all are living at the present time, June, 1853—minus a number less than the natural decrease of mankind, incident to the most healthy countries, as set forth in the Carlisle tables of mortality. The bench and the pulpit have scarcely lost a member except from accident or old age. The temperate lawyers with the exceptions just mentioned, are not only living, but are all rich, although they began life poor."

"It is the daily use of alcohol—particularly between meals—though in quantities regarded as small, which is so highly pernicious."

CORRECTION.—*The American Journal of Dental Science* for October says, that the editorial quoted in our last from that Journal, for Oct., 1852, with reference to Reproduction of the Maxillary bones, "was written by the junior editor, and only expressed his own individual views, as derived from the general tenor of the authorities which he had, at that time, read on the subject." It adds: "The senior editor has long been of the opinion, that the power of regeneration is, under certain circumstances and conditions of the surrounding structures, exercised in the maxillary as well as in other bones of the body."

We gladly take occasion to correct our mistake in attributing the editorial to Dr. Harris, only remarking that as the Dr. has long been the responsible editor of the Jour. of Dent. Science, and as the editorial appeared without a signature, we took for granted, as a matter of course from what we believed to be the rule in journalism, that it was written by himself. It is the custom with Journals that the senior or principle editor writes his editorials without a signature, while the articles of the junior or assistant editors are designated by their initials. From this we always know at once to whom to refer

the editorials of a journal having more than one editor. An article not thus designated is justly chargeable to the senior or principle editor, and he is responsible for the doctrines it may contain ; or if the editors have equal share and control, then each and all are legitimately held responsible, while they preserve acquiescence. In regard to the editorial in question, the opinions promulgated, (the error of which we adverted to,) were apparently acquiesced in for a year, by the senior editor, and might have been, perhaps, until a dozen editorial changes were made in his journal. Now it may be remarked in passing, that if editorials are to appear without any clue to the real author, and, though acquiesced in for a time, may be disclaimed by the senior, principal or permanent editor whenever occasion offers, then they become a dead letter for all purposes of reference, and the most irresponsible and unreliable communications that find their way into our medical journals. We hope, therefore, that the editorial corps of the *Journal of Dental Science* will hereafter let us know to whom we may attribute their respective articles.

We congratulate the conductors of the *Journal* in the acquisition of their new associate, Dr. Piggot, a physician and scholar of distinguished ability, whose labors will still further contribute to the usefulness of a work deservedly high in the estimation of the profession.

"EDITORIAL BICKERINGS."—The *Boston Medical Journal*, whose prosperity seems to have excited the pugilistic propensities of some of its cotemporaries, makes the following remarks which if generally acted upon would contribute greatly to the true interests of the profession as well as to the respectability of the medical press.

"The *Journal* is intended as a vehicle of medical intelligence, and will never be perverted to purposes of personal and petty quarrels, or be made an instrument for engendering feuds or propagating party or private jealousies. We have no individual prejudices to indulge, no ill will to gratify, nor a wish to interfere with the business, the prospects, or even the ambitious desires of others. Nor, if we had all these, need our readers fear that space would be occupied in these pages for the public exhibition of them. Those, therefore, who occasionally take delight in throwing a fire brand at us, will only burn their own fingers. The world is large enough for us all ; and it will be found easier and more profitable in the end to step aside, if we are in each other's way, than to fight for an inch of ground which we do not need, and which we could not use if we had."

Vol. 1.—No. 6. E

MISCELLANEOUS NOTICES, &C.

DR. HAMILTON'S *Fracture Tables*.—By the kindness of the author, we have had the pleasure of examining the *Fracture Tables* of Prof. Frank H. Hamilton, A. M., M. D.

The tables have evidently been prepared at great expense of time and labor, and we understand that no small amount of money has been laid out by Dr. Hamilton in prosecuting his research. The sale of the pamphlet can in no wise benefit Dr. H. He is in the enjoyment of an extensive field of practice, a lucrative professorship, and ample monetary resources ; but having labored for the sole purpose of benefiting surgeons, and the result of his labor being an efficient agent against the ungrateful attempts so frequently made to injure reputation, and defraud the workman of his hire, should be purchased by every one liable to be called to treat fractured bone.

The tables establish beyond controversy, that in the large majority of instances broken limbs remain imperfect. And though Dupuytren affirmed in the very opening of his treatise on the accidents and diseases of bone, that "of the various branches of surgery with which the ancients were acquainted, that relating to fractures was unquestionably the best known," Dr. Hamilton has shown that much has yet to be done, to make the surgeons intimately familiar with every point of interest and importance connected with the subject of fracture. In this connection, it will be well enough to call the attention of surgeons to the fact so fully dwelt upon by the old author we have referred to, that the first formation after fracture is only provisional, and that a considerable time, occasionally very many months elapse before the perfect formation of permanent callus. To attention to this point, with *the co-operation of his patients*, which cannot except occasionally be commanded now adays, Dupuytren ascribed the success which attended his practice. We thank Dr. H., for remembering us, in the distribution of his favors, and must be permitted to say, that this pamphlet is not his only contribution to the profession, possessing intrinsic value, that must attach to his name respect at present, and veneration hereafter.

F. A. R.

Female Doctors.—Is it consistent with the position assigned to the female sex, by the decrees of Providence, to assume the duties and responsibilities of the Medical Profession? We think not.

Under no form of social organization since the fall, has woman been

so dignified as in the United States. For ages, she has been the slave of the rougher sex, and by habit and education taught to regard herself as man's inferior in every respect; the record of her wrongs is, indeed, a dark feature in the annals of the human race — Under the Jewish Theocracy, the social position of woman was far in advance of her condition in the surrounding nations, though even among the Jews, her disabilities were in some respects grievous; as the Saviour himself testified, when he reproved the hardheartedness of the people for putting away their wives, upon slight prettexts. It is a significant fact that, in our country alone, under the elevating and refining spirit of christianity, has woman attained the social dignity originally designed by the Creator.

Were the sacred writings silent on the subject, it seems to us that the physical organization and physiology of woman would determine at once the sphere she is fitted to occupy, and convince every reflecting mind of the absurdity of her claims, as advocated by a few silly Bloomers, to an equal participation with man in the duties and responsibilities of public life. But it is evident that there is a certain portion of our fair country-women who are impatient of their fancied disabilities, and masculine supremacy, and are bent on a regular "Woman's Rights" War, until their grievances are redressed, and their capacity to be man's equal every way, fully conceded.

We believe the whole movement will result in a "promiscuous social intercourse," to the shame and confusion of these female fanatics. They seem determined, however, that the problem shall be worked out, even at the expense of their own happiness and reputation; but when once practically demonstrated, we believe American women will be content with the social condition which nature and the instincts of a christian people have justly assigned them. J. W. K.

Medical Reform.—A late number of the Virginia Medical and Surgical Journal, makes some very judicious comments upon the abortive efforts at medical reform, in the last meeting of the American Medical Association:

"We come now to the measure of Medical Reform brought before the Association. It was moved that Dr. WELLFORD's suggestions, touching the licensing power, should be referred to a committee, who should bring the matter fairly before the profession, and if necessary, memorialize the legislatures of the several States to carry out the wishes of the Association. Immediately there was a professional onslaught, and the subject was laid upon the table.

"It was then moved that no delegates be received in the Association from Medical Schools which give two courses of lectures annually, each of which counts towards a degree. Again, there was a flutter amongst the ranks of the lower orders of professors, who teach (!) all the year round, and, on motion of Dr. ATLEE, of Pennsylvania, the resolution was laid upon the table.

"In this connection, Dr. SAMUEL JACKSON mentioned an instance of a mechanic at Phoenixville, Pa., who had successfully attempted the vocations of cabinet-maker and grog-shop keeper, and had subse-

quently practiced, with popularity, as a Thompsonian quack. It was suggested to him that it was desirable that he should possess a diploma. He left his residence, and returned in one week, with a diploma of a Philadelphia Medical School. In reply to interrogations from various delegates, the eminent professor stated the name of his informant—a respectable practitioner of Phoenixville, and the name of the institution by which this diploma was granted—the Philadelphia College of Medicine, commonly known as “McClintock’s School.” Dr. BRYAN announced himself as the representative of this institution, but no motion was made to deprive him of his seat.

“Various efforts were then made to induce the Association to recommend Medical Schools to require their graduates to subscribe to a pledge to submit to the revocation of their diplomas, upon the conviction of having knowingly violated the Code of Ethics of the National Association. There was such an entire absence of concert among the friends of reform, that these efforts were easily frustrated.

“The subject of amendments of the Constitution now came up, and the delegates from Virginia presented resolutions from the Society of that State, urging such change in the Constitution, as should exclude from representation in the Association, all colleges and schools which do not conform to its recommendations on the subject of Medical Education. Dr. STEVENS, of New York, moved the indefinite postponement of all amendments, and it was decided that this motion was not debateable. Accordingly, it was carried by a triumphant majority, and the schools are left to the tranquil pursuit of their glorious objects for another year.

“Thus reviewing the late session of the American Medical Association, and arriving at the painful conviction that it accomplished nothing of importance or value on that occasion; that, on the contrary, its deliberations have had an injurious effect, in showing its impotence to effect those radical reforms expected of it, we desire to impress upon our readers the necessity for active and individual exertion in behalf of the interests of the profession. The voice of public opinion will be far more effectual in suppressing the evils which beset us, than the unheeded remonstrances of associations.

“We know that it is far easier to tear down than to build up, to point out defects than to correct them, and our expectations of improvement are not very sanguine. Still we believe it is in the power of individual physicians, by properly cultivating the noblest and most useful of human pursuits, by jealously guarding against every temptation which can lower the dignity of their calling, by refusing to receive students whose character or want of preliminary education unfit them for scientific studies, to elevate their profession in their own eyes, and in the opinion of the world.”

It seems to us but reasonable that judgment should first begin with the members of the association itself. It is folly to attempt to make clean the outside of the platter, while the inside is filled with impurities. An association of men for any purpose whatever, if they would commend the principles which they profess, ought first to give evi-

dence of their confidence in the soundness of those principles, by a rigid practical adherence to them. They that would sit in judgment over others, should first see that their own hands are clean, before they proceed to pass sentence on individual members of the profession. Now, we honestly believe that the American Medical Association is incompetent to the task which it has assumed, and we have no hope that any substantial progress can be made, until it is organized upon a new basis, and many of the *materials* of which it is at present composed, thrown off, and publicly repudiated. We have good reason to conclude that there is about as much arrant quackery and knavishness embodied in this Association, as can be found among the same number of medical men outside of it. It is sickening to hear men prating about brotherly love, and indulging in a profusion of great swelling words of vanity, about *honorable Medicine*, as though they were constituted the guardians of the morals of the profession, and themselves models of professional holiness, when the same individuals can secretly stoop to the most disingenuous and knavish tricks and manœuvres to promote their own selfish ends;—whited sepulchres—fair enough outwardly, but within full of rottenness and corruption.

A certain professor in an Eastern School, as we have it upon the best authority, has established a *private clinic* for the ostensible purpose of demonstrating and lecturing to his class, upon uterine diseases. Poor females are introduced into this *private clinic*, hoisted upon the table, and in the presence of his class, seated upon the benches at a *comfortable* distance a speculum thrust into the vagina, and the organ cauterized with lunar caustic. We candidly submit to an honorable profession—what is this professor's object, in thus exposing the nakedness of poor females to the gaze of his students, when it is impossible, as he very well knows, for them to appreciate by the sight, the nature of the disease, or the morbid aspects of the organ which he professes to demonstrate?

The ambition so common among professors in the schools, to secure large *private* classes, is often a source of serious complaint on the part of their colleagues, and not unfrequent are the heartburnings and bickerings instigated by it. The love of the almighty dollar is the root of the whole evil; and for the purpose of enticing a large *private* class, and pocketing a big pile of money, this distinguished professor, no other than Dr. Gunning S. Bedford, is willing to outrage the feelings of delicacy which even the most abandoned of the sex is not devoid of. Yet this man is a member of the American Medical Association, in good standing! and no one that we are aware of, has dared to rebuke him. We would be glad that some one would point out to us the difference between the knavishness of this distinguished professor and the patentee of Fahnstock's Vermifuge. To our apprehension of the thing, Dr. B. A. Fahnstock should be as unexceptionable a member of the Association as Dr. Gunning S. Bedford, &c.

J. W. K.

Medical Responsibility.—We are convinced that the subject of Medical Responsibility is beginning to receive that attention which it

deserves, and which, for their own sakes, the members of the general public should demand.

The opinion of others to the contrary, we believe that the day has not yet come—nor do we desire its arrival—when religious association fails to exert an influence, not only as relates to things heavenly, but to things earthly—not alone to things spiritually, but to things physically. The cant about priestcraft is all sheer nonsense, except when used to correct abuses rather than to limit the sphere of the legitimate influence of the zealous minister at the altar of God's own temples.

We say that we feel, to-day, more respect than ever before, for the persons, and office they fill, of those who stand as sentinels on the watch-tower—as pastors, shepherds, leaders, teachers—and who, according to their mental capacity, exert by far greater influence, no odds by what denominational name they may be designated, than any other members of society; and we believe that through them we will yet receive that testimony from the members of general society, which our profession so much deserves, and which, alas, has been too long withheld. When the sentinels give the alarm, those who confide in them arise to action: and this, we observe, has been sounded from more than one outpost. The Advocate, a Methodist paper, published at St. Louis, under the editorial conduct of Rev. D. R. McAnally, a gentleman and scholar, (whose acquaintance, we are proud to acknowledge, and whose friendly regard we would fain believe is ours,) who exerts an influence wide and extended—but not wider nor more extensive, than his mental powers and abundant acquirements capacitate him to sustain—has spoken.

In terms strong and decided as the character of the man who pens the editorial, has the Advocate denounced patent medicines, their proprietors and venders—most earnestly requesting that their advertising favors (save the mark) should be shewn else where. The only objection that can be found to the position of the paper, is in the fact that its editorial columns, in this particular, have not continued a succession of articles as positive and powerful as that to which we have reference.

And again, the Register, an Episcopal paper, of Philadelphia, has a leader of more than two columns length, headed "Religio-Medici," which altogether is a good thing—particularly the first paragraph, in which occurs this language, after speaking of the responsibilities assumed by the newly diplomated doctor: "And yet heavier, we are inclined to think, is the responsibility which belongs to those by whom they are commissioned—the teachers who have trained them and given them authority to take place in their high profession."

Press that point, Mr. Editor of the Register, and, our word for it, you'll accomplish more good than a dozen pages, ay, two dozen numbers of your paper, wholly devoted to a doctrinal point of small moment, would effect.

There is certainly, from such signals, ground to say "there's a better day a coming."

F. A. R.

MEDICAL SOCIETIES.—“We trust that our Society may co-operate with the State Society, so as to add strength and efficiency to that important organization. We hope that after its next session, the State Society will appoint some other place of meeting. Not that we have the slightest objection to Nashville, but because experience has taught us that change of place is favorable to the growth of State organizations.”—*Memphis Medical Recorder*.

We heartily second the proposition of co-operation from the *Memphis Medical Society*, and will gladly welcome our western brethren to all the duties and honors incident to membership in the State Medical Society; after which if they will make the above proposition, we will second the motion, and if necessary urge the Society's compliance. But until some of our East or West Tennessee brethren become identified with the Society—until they feel interest enough to co-operate in this “important organization” we cannot with present views of propriety, by our vote, consent to thrust its meetings upon them. Come gentlemen, show us your interest by your presence at the next meeting of the Society on the second Wednesday in November.

We think we but speak the sentiments of its members, when we say the State Medical Society, as such, has no local prejudices, or selfish purposes to subserve. It has reference solely as we understand it, to the greatest good, through the largest number of honorable medical gentlemen to the largest possible portion of afflicted humanity.

Hitherto, the working members of the Society, have usually been from the middle portion of the State, which alone, as we imagine, accounts for its repeated meetings in Murfreesboro and this city. There is however, no good reason why this should continue to be the case, only come up to the work gentlemen and it *will* be otherwise. As a State Medical Society the *Physicians of the State*, may of right say where its meetings shall be held, and for our single self, we are ready to go to Memphis or to Knoxville.

W. P. J.

A Practical Treatise on the Diseases of Children, by J. FORSYTH MEIGS, M. D., Lecturer on the practice of medicine in the Philadelphia Medical Association; Fellow of the College of Physicians of Philadelphia; Member of the Academy of Natural Sciences of Philadelphia, and of the American Philosophical Society. Second Edition, Revised and enlarged. Philadelphia: LINDSAY & BLAKISTON. 1853.

It is doubtless known to many, that so great was the demand for this eminently practical treatise, that the first edition was exhausted about a year ago. The Second Edition which is the copy before us is elegantly printed, well bound and contains seven hundred and eleven pages.

The following changes have been made since the first issue:

An Introductory essay of thirty-six pages on the clinical examination of children. The articles on Croup, Bronchitis and Pneumonia, have been differently arranged and much of each re-written; the whole improved, by observation derived from the treatment of a large number of additional cases. Additional facts derived from one hundred cases of Scarlet Fever. A lengthy article on Tracheotomy in

Croup ; an article on imperfect expansion of the lungs, and the application of the new doctrines of atelectasia, together with a hundred additional pages on diseases of the skin.

The introductory essay on the clinical examination of children, is alone, to the young practitioner, worth the price of the volume. For sale by W. T. BERRY & Co., *Public Square, Nashville*, or LINDSAY & BLAKISTON, *Philadelphia*. W. P. J.

Proceedings of the Medical Association of the State of Alabama.—At its sixth annual meeting begun and held in the city of Selma, December, 1852, with an appendix and list of members. Mobile, 1853.

The above Medical Annual of 160 pages, contains among other things of interest, a Report of Diseases of Mobile, Report on Indigenous botany of Clarke county. Report on Diseases of Centreville and vicinity. Report on Surgery. Report on *Gelseminum Semper-virens*. Report on diseases of Cahaba. Report on Indigenous botany of Perry. On Changeability of disease. Unity of disease. Report on the number and character of practitioners, etc., etc. But the paper which we think worth all the others was the "*Prize Essay on the Summer and Autumnal Fevers of South Alabama*, to which is appended some remarks on the diagnosis and treatment of Typhoid Fever, by L. H. ANDERSON, M. D., of Sumpter county. It is a capital production, alike creditable to the talent and industry of the author. At some future time we will give a more extended notice of Dr. A's Essay. W. P. J.

Practical Observations on Aural Surgery, and the nature, and treatment of diseases of the Ear. With illustrations. By WILLIAM R. WILDE, Fellow of the Royal college of Surgeons in Ireland ; Surgeon to St. Mark's Ophthalmic Hospital; Honorary member of the Royal Medical Society of Stockholm, etc., etc., Philadelphia : Blanchard & Lea. 1853.

We are indebted to the Publishers for a copy of this work ; the most complete and elaborate treatise, on the special pathology and therapeutics of the ear, we have yet seen.) We have not had leisure to examine the work as carefully as we hope to be able to do hereafter, but sufficiently to satisfy us, that it is worthy in an eminent degree of the notice of the general practitioner. It is a *practical* work, and evidently the result of extensive experience. Dr. Wilde's opportunities for the study of this class of diseases in "St. Mark's Hospital for diseases of the eye and ear," and the enthusiasm which he has from the beginning manifested in his favourite specialty, entitle him to rank as high authority in this department of Surgery. It is a remarkable fact, that scarcely one practitioner in a hundred comprehends the minute anatomy of the internal ear, and the treatment of its diseases is almost universally empirical,) this work of Dr. Wilde's will be a valuable aid to the physician in general practice in understanding the complicated anatomy of the organ, its various diseased conditions, and the rational mode of treatment.) For sale by Messrs. W. T. Berry & Co., Nashville. J. W. K.

The Physician's visiting list, Diary, and book of Engagements, for 1854. Philadelphia. LINDSAY & BLAKISTON, South sixth Street, above Chesnut.

The Physician's visiting list contains an Almanac Table of Signs, Preface, Poisons and their Antidotes, Blank leaves for visiting list, Memoranda, &c., &c. Blank leaves for the address of patients, nurses, their references, etc. Accounts asked for, and various other conveniences; for the arrangement of the "visiting list" we are indebted to the Publishers.

Physicians disposed to use anything of the kind, will, we have no doubt, find this the most compact and complete work of its kind.

For sale by F. HAGAN.

W. P. J.

"The action of Medicines on the system, or the mode in which Therapeutic agents introduced into the stomach produce their peculiar effects on the animal economy." Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal, for 1852. By F. W. Headland, B. A., M. R. C. S. Philadelphia, LINDSAY & BLAKISTON, 1853.

The mere fact that the treatise before us was delivered as an Essay before a learned Association and was awarded the prize, should be sufficient inducement to the medical reader to possess it. Our author proceeds to lay down ten propositions, to be treated of in the elucidation of his subject, and the ability with which he performs the task assigned him, shows him to be thoroughly conversant with his subject. In following these propositions he establishes the principles—that some medicines, in order to manifest their action, must pass into the blood, or internal fluids of the body; that some medicines are soluble in the gastric juice and are readily taken up by the absorbents to enter the capillaries of the portal system of veins; while the insoluble cannot gain entrance into the circulation; that a few medicines act locally on the mucous surface; that those medicines which pass into the circulation must permeate the mass so as to reach the point on which they peculiarly act, undergoing certain changes, affecting in some instances its influence, in others not; that the Hæmatic agents act permanently while in the blood—such are the Restoratives and the Catalytics; while the Neurotics, transitory in their action, act by passing from the blood to the nerves or nerve centres which they influence; these are the Stimulants, Narcotics, and Sedatives; and that the astringents pass from the blood to the muscular fibre, and the Eliminatives through the glands exciting them to action.

The work is for sale by W. T. BERRY & Co.

R. O. C.

A Treatise on General Pathology, by Dr. J. HENLE, Prof. Anatomy and Physiology in Heidelberg. Translated from the German, by Henry C. Preston, A. M., M. D. Philadelphia, LINDSAY & BLAKISTON, 1853.

Prof. Henle has acquired an extensive reputation in Germany, for his Pathological investigations. Having graduated at the University of Bonn, where the famous John Muller was making his brilliant experiments and investigations, he entered himself with so much zeal and

success upon the same scientific pursuits that when his preceptor took the chair of Anatomy in Berlin, he was appointed his prosector. Subsequently occupying the chairs of Anatomy and Physiology in Zurich, Heidelberg, Göttingen and now at Munich, and, as the author of several other standard works of the same nature, he is eminently qualified, as the work before us fully testifies, for preparing a treatise on this highly important subject, important because it is the foundation of rational medicine.

For sale by W. T. BERRY & Co.

R. O. C.

A Treatise on Operative Ophthalmic Surgery. By H. HAYNES WALTON, Fellow of the Royal College of Surgeons in England, Surgeon to the Central London Ophthalmic Hospital, and Assistant Surgeon to St. Mary's Hospital. First American, from the first London edition, illustrated with one hundred and sixty-nine engravings on wood. Edited by S. LITTELL, M. D., author of a Manual on the Diseases of the Eye, Surgeon to Will's Hospital for the Eye and Limb, Fellow of the College of Physicians of Philadelphia, &c., &c. Philadelphia: LINDSAY & BLAKISTON. 1853.

We are indebted to the enterprising publishers for a copy of this new and very valuable work, just issued by them, under the editorial supervision of Dr. Littell of Philadelphia. It is no discredit to the Medical Profession of the United States, to be indebted to British and Continental writers for the most valuable works in Medicine and its collateral branches, especially in surgery. The superior advantages and facilities enjoyed by our brethren in the old world, for extensive and accurate investigation, in special departments of Medicine, especially their superior medical attainments, preparatory to the practical duties of the profession, must, for an indefinite period, render us in a great measure, dependent upon foreign authorities.

This is a volume of near 600 pp., handsomely embellished by a large number of well executed wood cuts, representing the various diseases of the eye and its appendages, and the most approved instruments employed in the different operations, &c. Perhaps no man in Great Britain has had better opportunities to produce an authoritative treatise on the Surgery of the Eye than Dr. Walton, and his work will doubtless take the place of all others in this department. For sale by Messrs. W. T. Berry & Co.

J. W. K.

Principles of Medicine, comprising General Pathology and Therapeutics, and a brief general view of Etiology, Nosology, Semeiology, Diagnosis, Prognosis and Hygienics. By CHARLES A. B. WILLIAMS, M. D., F. R. S., Fellow of the Royal College of Physicians; Late Professor of the Principles and Practice of Medicine, and of Clinical Medicine, and First Physician to the Hospital, University College, London; Consulting Physician to the Hospital for Consumption, and Diseases of the Chest; Late President of the Pathological Society of London, &c. Edited with additions by Meredith Clymer, M. D., Fellow of the Philadelphia College of Physicians, Late Consulting Physician to the Philadelphia Hospital, &c., &c., &c. Fourth American Edition, revised. Philadelphia: BLANCHARD & LEA. 1853.

We are under obligations to the publishers for a copy of this exceedingly valuable work—the best, we believe, in the whole round of Medical Literature. The division of the different subjects is excellent. The author's method of investigation and mode of expression, in our judgment, are faultless. We can most cheerfully commend the work as the *best* that has ever appeared, on the principles of Medicine; and we would advise young practitioners especially, to furnish themselves with a copy, as well for the value of the information it conveys as for the facilities it will afford them in the prosecution of their own investigations. ¶ The work may be procured of Messrs. W. T. Berry & Co., of this city.

J. W. K.

The Practice of Surgery. By JAMES MILLER, F. R. S. B., etc.—Third American, from the Second Edinburgh Edition. Edited by F. W. Sargent, M. D.—8vo., pp. 720. Philadelphia: BLANCHARD & LEA. 1853. [From the Publishers through W. T. Berry & Co.]

Perhaps no work better deserves the high encomiums bestowed upon it by the Medical press than the one before us. The author distinguished alike as a practitioner and writer, has in this and his "Principles," presented to the profession one of the most complete and reliable systems of Surgery extant. His style of writing is original; impressive and engaging—energetic, concise and lucid. Few have the faculty of condensing so much in small space, and at the same time so persistently holding the attention; indeed, he appears to make the very process of condensation a means of eliminating attractions. Some of his passages glow with a sort of poetic life—but there are no fancy sketches about them—he is dealing with practical facts. You are not impressed with the idea of a poet, with "pen of fire," etc.; you only see the earnest, prompt, decisive, Master-Surgeon, with scalpel, knife, or saw in hand, equal to the work before him.—We might illustrate by quotations, but his works are too well known to need it.

The present edition of the *Practice of Surgery*, is enlarged by upwards of two hundred pages, of which the American editor has contributed a goodly proportion of excellent matter, enhancing very much the value of the work. It is illustrated with over three hundred wood engravings, supplied with copious references to authors upon the subjects treated of in the several chapters—contains an ample index, and is gotten up in the best style of publication. Whether as a text book for students or a book of reference for practitioners, it cannot be too strongly recommended.

B. W.

A Practical Treatise on the Diseases of Children. By D. FRANCIS CONDIE, M. D. Fourth Edition, Revised and Augmented. Philadelphia: BLANCHARD & LEA. 1853.

The diseases peculiar to children, often presenting the most perplexing cases with which the physician has to contend, are eminently worthy of especial attention and investigation. Dr. Condie has entered the list in this field of labor, with an earnestness and zeal becoming the subject, and his contributions as embodied in the above work, have

been hailed by the profession with the meed of approbation which they justly merit. His work is widely circulated, and requires no exposition, from us, of its contents. It treats, first, of the Management, Peculiarities and Pathology of Children, and, secondly of the Diseases and their Treatment during this period of life—taking up separately the organs and functions, with the peculiar affections to which each is liable. In the present edition, he has availed himself of the “opportunity of again subjecting the entire treatise to a careful revision, and of incorporating in it every important observation recorded since the appearance of the last edition, in reference to the Pathology and Therapeutics of the several diseases of which it treats.”

The work should be read by every practitioner. It is to be had at the Medical and Miscellaneous Book establishments of Messrs. Toou & Rutland, and W. T. Berry & Co. B. W.

On Diseases of the Liver. By GEORGE BUDD, M. D., F. R. S., Professor of Medicine in King's College, London, and fellow of Cain's College, Cambridge. Second American, from the Last and Improved London Edition, with colored plates, and wood cuts. Philadelphia: BLANCHARD & LEA. 1853. pp. 468.

Probably no subject in connection with Medicine, more deserves the careful investigation or philosophical consideration of the southern mind, than diseases connected with or dependent upon functional or organic lesion of the liver; and it is probably true that the general practitioner knows less and talks more of this class of diseases than all others connected with the animal economy. If one has the bellyache, the toothache, bilious, remittent, intermittent or typhoid fever; croup, asthma or consumption; diarrhœa, dysentery or cholera—or, in short, if he has a pain or an ache, whether of the toe, the head, or any intermediate locality, with a knowing look, it is said, “the liver is deranged,” and when the “liver is deranged,” as a matter of course, the common people very reasonably conclude the other organs may go wild, *ad libitum*. If, in his promiscuous bundling, a poor unfortunate fellow contracts the itch, the learned Doctor mercenaryizes the outer man, or if the unhallowed scamp, in his nocturnal peregrinations, indulges in the unfruitful works of darkness, and thereby gets himself inoculated with venereal virus—a merely local affection—why, the day has not long past, since students, preceptors, professors, and everybody, would have said, “his liver ought to be acted on; he must take calomel.

From the palmiest days of Prof. Cook until now, the Liver has been the Jibbenainosay, or Nick of the South. Men, women and children throughout the country have seen death and destruction from all sorts of disease, but like Jim Brown, Samuel Sharp, and Peter Smalleye, they are ever ready to point out the marks of the Jibbenainosay. Now, be it remembered that the aforesaid gentry had never “percisely see'd Nick of the Woods himself, but had in their time, see'd two different savages of his killing, and occasionally had *glimpses* of him stalking through the dense forest of Salt River, and they with a dozen or two others perfectly agree that he looked more like a devil

nor a mortal man———a great tall fellow with horns, and a hairy head, like a buffalo bull—and a little devil that looked like a b'ar, pointing out his way." So with many of our Sovereign Southrons, they have never examined or even seen the liver complained of, but they have seen his shadow on the jaundiced patient of the boggs of the South, and his oft repeated mark upon the hapless victim of yellow fever. And when they see the one or hear of the other, they know "the Jibbenainosay is up again," and are ready, with Capt. Ralph Stackpole, to exclaim, "tarnel death" to the liver! or to adopt the not less expressive, but more elegant language of a lawyer in our office the other day: "The liver is a terrible organ, and I have often thought, ought to have been left out of the body. There have been more direct attacks upon it than every other portion of the system."

Man in health, is wont to think well of his hands, his head, his heart, in fact, of himself as a whole, but when bilious, will always abuse his liver. He may *himself* grow wondrous "torpid," "fatty," "inactive," or half "deranged," but his liver must do neither, but act wisely and healthfully all the time. To those desirous of forming a correct knowledge of this honorable, though oft and much abused functionary, we propose an introduction to Dr. Budd, who has been intimately associated and acquainted with the Jibbenainosay of man's organism, for a number of years, and has made the able and elaborate report before us.

A previous edition of Budd on the liver, having been before the American profession, it is needless to allude to the present, except to say the second edition is one of the most creditable productions of the distinguished publishers, BLANCHARD & LEA, Philadelphia, and is for sale by W. T. BERRY & Co, Nashville.

W. P. J.

The following Works have been received :

The Maternal Management of Children in Health, and Disease. By THOMAS BULL, M. D. Second Edition, 12 mo., pp. 424. Philadelphia: Lindsay and Blakiston. 1853. (From the Publishers through W. T. Berry & Co.)

The Microscopist, or a Complete Manual on the Use of the Microscope, for Physicians, Students and all lovers of Natural Science; with illustrations. By JOSEPH H. WYTHES, M. D. Second Edition.—Philadelphia. Lindsay & Blakiston, 1853. (From the Publishers through W. T. Berry & Co.)

The Peninsular Journal of Medicine and the Collateral Sciences. Edited by E. ANDREWS A. M., M. D., Demonstrator of Anatomy in the University of Michigan Ann. Arbor, Mich. Nos. 2 & 3. [In Exchange.]

OBITUARY.

DR. R. L. SCRUGGS.

It has become our sad and painful duty to chronicle the decease of our esteemed and lamented associate, of Shreveport—fallen a victim to the dread angel whose pestilential wing has been sweeping the sunny plains of the South. The melancholy intelligence is just received by a letter which we haste to spread before our readers. We leave the letter to unfold its mournful burden, while we bow with sorrow to the stern decree which consigns our friend and fellow-laborer to the tomb.

EDS.

SHREVEPORT, CADDO PARISH, LA.

Sept. 28, 1853.

DR. JOHN W. KING, Nashville, Tenn.:

Dear Sir:—Your communication of the 31st August last, addressed to Dr. R. L. Scruggs, late of this place, was by me taken from the P. O. this evening. To the irregularity of the mails, caused by the universal distress in every part of our afflicted State, is to be attributed its delay in reaching this point.

Upon me, sir, devolves the sad necessity of replying to your letter. It is my painful task to trace the words which will inform you, that he who but a week since was with us, is now no more.

In thus addressing you, I act by the request of the late Dr. Scruggs, made but a few hours before his decease. I may observe that the accompanying article is the one to which you make reference in your note and which you are aware was prepared by the deceased, in compliance with a request extended to him by the "committee on Practical Medicine" of the "State Medical Society of La." It was completed some time since, but Dr. Scruggs having, in the latter part of August, been called to treat a patient for what proved to be yellow fever, he retained the article for the purpose of adding the result of his experience in the treatment, and his observations upon the character of this dreadful scourge, he, together with others, being convinced that it would manifest itself in epidemic form here as well as elsewhere through the South. But, alas! the hand of death has fallen upon him, and the very disease which he encountered so fearlessly, has numbered him among its victims.

It having been my good fortune to enjoy a somewhat close degree of intimacy with Dr. Scruggs, and being of rather an enquiring disposition, I would frequently visit the more serious cases which Dr. Scruggs had under treatment, and in the many pleasant hours which I have passed in his company, it was his wont to dwell at length upon the nature and character of certain forms of disease. Since the development of yellow fever in N. Orleans, he has frequently

made it the subject of profound enquiry; and it was his fortune to treat the first case which presented itself in our town, and he was the first to announce the existence of the disease at this point. He requested me to notice at length this first case, in my letter to you; and only under these peculiar circumstances should I venture to touch upon a topic which has so long been a subject of such anxious investigation, and so much scientific research. About the 27th of August, Dr. Scruggs was called to J. B. C., aged 36 years, of large frame, and general appearance indicating excellent health. He found the patient in a condition somewhat anomalous for this section of country. He complained of continued and unusual nausea, pain in the diaphragm, neuralgic pain (as he termed it) in his head and back, and general distress in every part of his body. His face presented a flushed, anxious and unsettled appearance; his eyes injected, red and wandering restlessly around him; his skin dry and remarkably hot. His bowels were constipated—his tongue thickly coated with brownish fur. The ordinary cathartics failing, drastic purges were resorted to and the desired effect produced. In the mean time his feet and legs were placed in warm mustard baths; mustard poultices applied to the back and stomach, and blood-letting by cups effected for the purpose of relieving the pain in the head and diaphragm. After a few hours, violent vomiting ensued, and the patient ejected a large quantity of whitish fluid, occasionally mixed with thin, white grumous matter. In the course of forty-eight hours all of the urgent symptoms were relieved, some little disposition to vomit still manifesting itself, however. That was soon quieted, and although the patient was prostrated in an unusual degree, considering the length of his attack, no serious result was anticipated. Rest, and quiet, and abstinence from food for a few days, were prescribed, and he was left, as was supposed out of danger. But, heedless of advice, the Doctor's back was hardly turned, before a water-melon was brought, and the sick man ate largely of it, to quench his thirst. In a few hours, every bad symptom returned, with renewed and increased intensity: and when Dr. Scruggs returned to his patient, he found him ejecting freely, and apparently with little effort, a blackish, brown, grumous matter. Just fancy flakes of soot mixed with coffee grounds and dirty water, and you may form some idea of the vomit. He returned to his office to consult some authority, and meeting me, asked me to go down with him, and look at the new disease—for new it certainly was to both of us. On our way, by request of Dr. Scruggs, we were joined by Dr. H., a medical gentleman who had seen the yellow fever. He at once pronounced it that disease, and Dr. Scruggs assented. I looked on, said nothing, but inwardly prayed it might be the last case I would have to look upon. Every effort was made to arrest the vomiting, but in vain, and in a few hours the man was a corpse. Dr. Scruggs reported his case "Yellow Fever," and Dr. H. concurred with him. The good people of Shreveport, however, were incredulous, and after a few shrugs of the shoulder, we heard no more of yellow Jack for about eight days:—and here I can give the advocates of the theories of contagion and importation a sweet morsel. This patient was employed in a commission house in Shreveport, and but a day or two before his attack, partly unpacked a crate of earthenware from N. O., handling the straw, &c., in which the ware was packed. This crate was then set aside for some two weeks or more, when a partner of the house, just returned from Texas, recommenced the task of unpacking it. He, too, sickened and

died of yellow fever and black vomit. I may observe, however, that several deaths from yellow fever had occurred prior to the attack of the latter person.

But to resume : A week from the death of the first named case, Dr. Scruggs was called to a Mexican, who had been in Shreveport more than a year. He died of the Black Vomit. The morning after this case occurred, seventeen cases were announced, the next day eighteen—the disease thus, at one furious bound assuming a malignant, epidemic character. The third day eight new cases were reported, and since that time, from three to eight cases have been reported. There is a general similarity in the symptoms, and the same stubborn resistance to remedial agents in almost every case. There have been up to this time, nearly forty deaths ; and I should imagine that there are at least ten under treatment who will die. I have been among it night and day for fourteen days, and have so far escaped. There was a perfect stampede of the citizens, and I suppose that the disease has spent its fury so far upon a population of about five hundred. It is still virulent and clamorous for victims, is indiscriminate in its selections, and unless it soon abates we will have no one to nurse the sick, for many who have braved it thus far, are growing weary of the dreadful sights and sounds in our midst, and are preparing to flee. I have made up my mind if I am spared through it, to seek some more pleasant clime, where yellow Jack is a stranger, and the word heard only at intervals “few and far between.” Like he who was “almost persuaded to be a christian,” I was once almost persuaded to be a Doctor, but this season has driven the idea far away. And now so far as my attempt to notice the disease as it has prevailed in Shreveport, is concerned, I am done. I have performed the task in fulfilment of a promise, and send the result of my effort “with all its imperfections,” asking you to take it only for what it is worth.

And now with a heavy heart I come to speak of the loss of him whose name I have mentioned. It is a task which I would that Heaven had spared me.

From the time of the appearance of this terrible scourge in our midst, Dr. Scruggs was unremittedly engaged in the practice of his profession. Night and day he hurried from house to house, sparing no effort of skill to alleviate the sufferings of the stricken. On the morning of the 23d I met him, stepping from his buggy, and to my dismay, saw in his countenance the unmistakable traces of this dire foe. He was aware of his condition, and asked me to drive him home. I did so, and remained with him until he breathed his last—just ninety-six hours from the time of his attack. There was no marked peculiarity in any of his symptoms, but an entire absence of one which has most generally been attendant on the attacks during this epidemic. I mean the disposition to vomit. He lay down at eight A. M., and for forty-eight hours the fever rioted in his veins with fierce and burning fury. At the expiration of that time it left him. There was no gradual decline of the heat, but as if with one step it left his body. He turned to me and remarked that “it was gone.” But added he, “I am dreadfully prostrated.” He sunk into an easy, quiet slumber, and for two hours lay perfectly calm. He then suddenly awoke and with a spasmodic motion threw himself half around. I shall never forget his look as he said, “I thought I was about to have the vomit—move me gently, or you will kill me.” We laid him in an easy position, but he refused to receive either nourishment or stimulant, and gradually sunk. At the

seventy-second hour his pulse was only forty-five, and very feeble. About noon he rallied and made his will. He then asked me to perform the task on which I am now engaged. This was the last. Slowly but surely he sank until one A. M., on the morning of the 27th, when the spirit left his body, and naught but a handfull of clay was left of him whose loss we cannot too greatly deplore. R. L. Scruggs was born in Cumberland County, Virginia, on the 2nd Oct., 1813. At an early age he emigrated to the West. In 1841, while a resident of Shelby County, Tennessee, he commenced the study of medicine, and devoting himself assiduously to his task, was soon prepared to receive his diploma. After several years of successful practice in Shelby County, Tennessee, he removed to Shreveport in 1849, where he soon acquired an enviable character as a practitioner. Alas! that we should be called upon to mourn his loss, who thus, in the prime of life, in the enjoyment of every faculty unimpaired, in the full promise and bright hope of a useful and brilliant career, and blessed beyond the common lot of mortals in the possession of a family to whom he was devotedly attached, and who in return lavished upon him all those warm and endearing affections which make home a Paradise, has thus been hurried to the dreamless rest of the grave, by this destroying Pestilence. How poorly am I able to speak of his worth! Enthusiastic in his devotion to his art, fearless in confronting any and every danger to which the Physician is exposed, genial and winning in his address, and possessing in an unusual degree, that tact which is so necessary to the medical man, he had reason to congratulate himself upon the career so auspiciously begun, and to promise himself a well earned reputation, and an abundant competency with which to make glad and pleasant his declining years. And not alone as a Physician, did he win the admiration of those who knew him! As a citizen, ever generous, hospitable, chivalrous and kind, he had gathered around him a host of friends, who will cherish his memory as that of a good man through life. As a husband, faithful and affectionate—as a father, finding his chiefest pleasure in the home circle, it is there, around that desolate hearth stone, that his loss will be most severely felt! It is around the stricken hearts that cluster there, that sorrow has folded her darkest mantle! In the midst of life we are in death! Even in the very glow of exultant hope, while his heart was the home of the kindest impulses, while his hand was open to his friends, and while he was ever ready to utter words of encouragement and cheer to those who found in him a companion who was always true, he has been taken from us. Looking mournfully back, we think how, but a few short days since, he was with us in the enjoyment of perfect health—we ask can it be so? Alas! the hushed voice, the dimmed eye, the pulseless heart, the nerveless hand attest too truly that he has gone from earth; gone from a wife who loved and was loved; from children, who ever, as the familiar step was heard, would “climb his knees, the envied kiss to share,” and bless him with innocent love; from friends who cannot fill the void which his loss has created in their hearts. Gone! and as we sadly breathe the word, memory, with folded arms, bends above his grave, and our tears fall fast for him whose voice shall fall upon our ears no more, whose soul is now “with the spirits of just men made perfect.”

ALBERT T. HAWLEY.

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 ERRATA.

- Page 59, line 22, for "themral," read "thermal."
 Page 145, line 15, for "chemical," read "clinical."
 Page 149, line 17, for "politicians," read "pharmacutists."
 Page 169, line 23, for "clear," read "calm."
 Page 216, line 22 & 23, for "cuspidati," read "cuspidatus."
 Page 273, line 12, for "contradicted," read "contraindicated."
 Page 291, line 1, for "Medicine, and Surgery," read "Dental Surgery."
 Page 300, line 6, from bottom, for "in complication," read "uncomplicated."
 Page 305, line 4 from bottom, for "rule," read "role."
 Page 306, line 2 from top, for "antagonistic," read "intangible."
 Page 320, line 4 from end of article, for "exp." read "emp."
- A few others have occurred but are less important, and will be readily corrected by the reader.

RE-PUBLISHED

FROM THE

NASHVILLE JOURNAL

OF

MEDICINE AND SURGERY,

FOR APRIL 1852.

MEDICO-DENTAL EDUCATION.

On the Organization of Schools of Dental Surgery in connection with Medical Colleges. By B. Woon, M. D., Dentist, Nashville, Tenn.

In a previous number of this Journal, I endeavored to show the nature and requirements of Dental Surgery, its claims as a medical science, and also its distinctive claims as a speciality, and pointed out the propriety of teaching it as a branch of medicine, in an adjunct or supplementary department of Medical Colleges.—If it be a natural branch of medicine, it should certainly be based upon and derive its support and growth from the latter. The principles of medical science, it is clear, should be understood in order to understand correctly their application to any special branch. Hence a *complete* dental education would include a knowledge of medicine, extended or carried forward into the details of dental surgery, and could only be obtained by a proper course of instruction in the former, with an additional course in the latter. This is believed to be the true way of obtaining a dental education, and this would appear to be the natural aim of every

intelligent dentist who wishes to elevate his calling to its due position of usefulness and honor.

This however would be requiring more of dental students than is required of students of medicine and surgery. But neither the community, nor the dental or medical professions are at all prepared for such an extension of the course of study in dental science, which has until recently, been regarded as rather a mechanical than a medical art, or at least, as a comparatively unimportant appendage of general medicine and surgery, and as requiring proportionally less preparative instruction to qualify for its practice. But the more observant of all parties are prepared to see *as full* a course of study, and *as long* a period of pupilage required, as is exacted in the ordinary course of medical study. Dental schools professedly require two full courses of collegiate instruction, or its equivalent, on the part of their students; medical men are becoming more and more impressed with the conviction that dentists should have a knowledge of medicine, dentists of high standing are ably advocating the necessity of a full course in a medical college which shall include a chair of dental surgery, as a preparation for dental practice, and the community at large are unwilling to patronize a practitioner of dentistry unless he can lay claim to two or three years preparatory training, or at least as long a period of actual "practice."

These things considered, we may reasonably contend for as great a range and as long a period of study for the dental student as for the medical. But we cannot expect at present to go beyond this, however much it might be needed; and indeed in any reform, it is policy to require at first too little rather than too much.

In view of the necessity for both medical and dental instruction on the part of the dentist, and the expediency of conforming to the customary period of study, and also in consideration of the forcible objections urged to the system of education pursued in dental schools as now organized,—*

*The following extract will show the weight and drift of the objections referred to. It is from a communication, by Dr. Trevor, of N. Y., in a late number of the New York Journal of Medicine, wherein the writer strongly advocates the establishment of a Dental Chair in Medicine.

I have taken occasion to propose, in a former article, a plan of medico-dental instruction, according to which the student would go through such a course at medical colleges as should embrace the fundamental branches of medicine; omitting such as could be best dispensed with, and taking in their stead a special course in dental surgery.

It was assumed that the dental course would require three dental chairs; and it was suggested that attendance upon the lectures of at least four of the medical chairs, be required, (including in full, the cardinal branches, Anatomy, Chemistry, Physiology and Pathology, which are indeed the foundation of all medicine.) To these a fifth might, and should eventually be added; and as the importance of the other branches became appreciated, and the time arrived for such extension in the range of dental instruction, the full medical course would be received, being followed by that in dental surgery as a supplementary course.

Any important omission in the medical course would of course be supplied by additional lectures from the dental faculty; or if the medical professors could bestow that attention to the teeth and their relations which the subject demands, and in regard to which it is important medical students be informed, two dental professorships might suffice to start with. These minutiae admit of easy arrangement. Let the main principle be obtained, and the rest would necessarily adjust themselves to the best advantage. The prosecution of dental surgery as a summer course was also suggested as a means of obviating unforeseen difficulties: while the absence of the required private instruction was proposed to be sup-

Colleges:—having spoken of the evils from existing deficiencies and irregularities in dental education, he adds:—

"Under the plea of remedying all these evils, what are termed Dental Colleges have been recently brought into existence. Conscious of the wants in this branch of the medical profession, and of the obvious inefficiency of a large number of those who appear in the capacity of its practitioners, and a bold appeal, if not altogether for granted, certainly without sufficient investigation, that these institutions must necessarily remedy the deficiencies so generally felt and justly complained of, some of the members of the medical profession have accorded to them a degree of countenance and approbation, to which it can be easily shown, that they are by no means entitled. They come before the public with such confident promises and plausible pretensions, and as at present constituted, are so decidedly inefficient, that they are a greater drawback to improvement than if they had never existed. They profess to remedy an evil, which they most effectually and glaringly magnify. They hold out the idea of giving a complete and finished course of instruction in dentistry, while full two thirds of what should be taught, and that the most important, too, viz., all the instruction which every medical school teaches in Medicine and Surgery, it does not enter into their arrangements, nor do they possess the ability, with any degree of usefulness or benefit, to perform."

plied by keeping the dental laboratory of the college open to students during the year.

Such a mode of instruction although novel so far as medical schools are concerned, would be in keeping with the system pursued in other institutions of learning, wherein, while a general routine is considered indispensable and made obligatory upon all, there is an additional and more thorough instruction in certain departments,—as the Mathematical, Scientific, or Classical course,—the pursuit of which is optional. This system of education has recently been still further improved upon in some of our Universities, allowing students to select such studies as they may deem most important in preparing themselves for their several pursuits in life and also giving them, in place of the general diploma, certificates of their actual attainments in the branches pursued.

The propriety of modifying, within certain restrictions, the course of instruction in literary colleges, to suit particular ends, or of omitting some branches so as to make room for a more thorough prosecution of others, will be obvious enough, as well as the necessity of mastering certain fundamental branches which are the basis of all education. Thus while an opportunity is afforded for the extended prosecution of any department, all are connected together at a common centre, constituting in the totality a unit;—the necessity and advantage of which will be readily suggested. The same is applicable in medical education. Let the cardinal branches of medicine be taught to all designing to prosecute any specialty, and then let this be pursued in all its details as the object of after practice. So of dental surgery;—Let it be in *practice* what all admit it to be in fact, a department of medicine; and then to carry out the principle, let it come in for its due share of the general science at the institutions whose business it is to teach this. Let the course in this be abridged if expedient, by omitting certain branches which could be most safely dispensed with, but let the student go at once to the fountain-head for what may be adjudged indispensably—and then let him perfect himself in dental surgery by a further course of instruction (either connected with or subsequent to the for-

mier) under those who are practically conversant with its various details.

It is true such a course would, if completed during the ordinary term, necessarily exclude some of the medical branches; while it is admitted that all are of more or less importance to the dentist;—not one but is calculated to shed light upon his pathway during his practice. But it is also evident that some are inferior to others in direct practical utility: and the obvious necessity for thorough dental instruction, will indicate the propriety, where something must be omitted, of such branches giving place for those of dental surgery. Now if the mode of dental education were adopted which proposes to create a chair of dental surgery in medical colleges and according to which medical and dental students would receive precisely the same education, it could only be done but by virtually excluding a portion of the regular medical instruction.

Medical Colleges appear already to have *all* their time occupied by existing chairs, so that some one of these would have to give way for the introduction of the new one; or, if not, the number of lectures upon the usual branches must be lessened, which would amount to about the same thing, or perhaps worse, if, as is so often urged, the time now allotted to each professor is insufficient to do justice to his subject. Besides, to be of material service as a means of *dental* education, such additional chair should be accompanied by dental laboratories attached to the colleges, (as proposed by Dr. Allen of the *New York Dental Recorder*,*) wherein the student could have the benefit of demonstration and practical instruction in operative dentistry; and in devoting sufficient time to derive any advantage from this, he would be obliged to forego attendance upon some of the medical chairs. Why

* Dr. Allen was connected with the New York Medical College during its preliminary course, as Professor of Dental Pathology and Dental Surgery: the following are his remarks in the "Recorder."—"We were pleased to see that the class manifested a very commendable interest in the diseases of the teeth, and their connection with those of the general system, a subject which has not hitherto elicited that attention from Medical Schools which it most justly merits, and which it is yet destined to receive. Since the delivery of these lectures, we have been applied to for practical instruction in operative dentistry by medical students in this and other schools in the city, and we have no doubt but what either school which would establish a chair of Dental Surgery, and provide room for a suitable *dental laboratory* would receive a great acquisition to the number of its students, especially from the Southern States, as we are informed that most of those students desire to qualify themselves to perform operations upon the teeth."

not, then, especially in the more important cities, aim to secure a complete course in Dental Surgery at once? For it is equally important to provide for a system of more efficient dental, as well as a more liberal medical education, than has hitherto been furnished.

But although the dental student would not have the advantage of a *full* medical course, yet, say that he attended the lectures from four medical and three dental chairs, he would in the first place obtain an incomparably better knowledge of medicine, than it is possible for the two medical chairs of a dental college to furnish, devoted, as they appear to be, rather to details relating to the speciality of dental surgery than to the general science. He would in the second place, receive thorough instruction in dentistry proper; the science, practical as well as theoretical, being fully explained and illustrated by lectures and demonstrations during the public course; and the mechanical and manual training being acquired during the term of private instruction, either in the office of a dentist, or at the dental laboratory of the college,—the only *suitable time and place for this species of training*.

If however, dental surgery should be taught during a *Summer Course*, all objection on the score of incompleteness in medical instruction could be obviated at once.

But I advocate this plan of dental education upon broader grounds than what I have hitherto referred to—and these are predicated upon what I conceive to be the most practicable means of reform in medical education, having reference to, and designed to harmonize with, such modification and improvement as readily might, and as I believe, eventually will be brought about in the system of medical colleges.

Among the measures proposed for affording more thorough and liberal medical instruction within the customary period of pupilage, it has been recommended to establish additional chairs in medical schools. The policy of this, however, would seem to be questionable:—many believe there are already too many chairs, or at least, too many hours consumed in lecturing; students become wearied and inattentive—both mental and physical powers exhausted from the constant confine-

ment to the lecture room. It is probable that five lecture hours in the day, three in the morning and two in the evening, are about as many as can be attended with profit; for all must admit the importance of time to review and follow out the lectures—to *digest and assimilate* the subject-matter presented. Another means, now being adopted, is extension of the usual term of lecturing, by a preliminary course. This is without doubt an important advance; as also the addition of a Spring or Summer course, customary at some schools.

Preparatory or primary schools of medicine, and those devoted to more thorough cultivation of special departments, may also be the means of effecting much. The objects of these however might be equally obtained by the regular colleges. Converting their preliminary lectures into a regular *preparatory course*, and devoting their summer sessions to the several *specialities of medicine*, they might have, within themselves, both Primary and Special schools. The fall term might then be devoted to the elementary and collateral branches of medicine, the winter to the general science, as usual, and the spring and summer to the more practical details of various departments. Thus, less incumbered by the *minutia* of specialities, the curriculum of the winter course would be enabled to include the “principles” of all so far as directly connected with the general science. This need not materially disturb existing arrangements, but on the contrary would tally with the advances already made. And there is no good reason why it should not be put in practice, since every facility is at hand for doing so. Indeed, while other institutions of learning are in operation throughout the year, there is no propriety or *excuse* that medical colleges, created at great expense and furnished with ample means for instruction, should remain inoperative and dormant *two-thirds of their time!* On the contrary, having the necessary time and facilities at command, it would seem to be their interest as well as duty, to provide in their own halls, for the cultivation of not only the ordinary branches relating to general practice but of every department of medicine. When this shall be brought about, (and the tendency is evidently towards it,) then

will dental surgery, together with other specialities, be amply provided for under one and the same paternal roof.

The adoption of a system of medico-dental education such as I have advocated as the basis of organization of dental schools, need not militate or interfere with existing dental institutions:—these should still continue to operate as special schools of dentistry, being of great benefit to those having the advantage of a course of medical instruction; and if they were to require such a course on the part of their students, they might assume the rank of high schools.

Neither would it conflict with the establishment of a dental chair or lectureship in medical colleges, if trustees and faculties deemed this advisable. And indeed it could be easily shown that such addition, if it could be made without the sacrifice of any other equally important part of medical instruction, would be of great value to students of medicine; in regard to which however medical faculties must be the judges; this belongs to the subject of *medical*, not dental, education.

The advantages of the system may be briefly summed up as follows:—It would afford during the customary term of pupilage, a more liberal and thorough knowledge of what is essential to constitute proper qualification for dental practice, than any other public course of dental instruction which has yet been adopted or proposed. It would contribute to give *unity* to medical science as a whole, bringing together under one general head, its several members. It would bring dental surgery back within the household of the parent science, and connect it in natural brotherhood, with other specialities. It would tend to identify the interests of the dentist, the physician and the surgeon, promote sympathy and concert of feeling and action, and inspire mutual respect and confidence. It would stimulate the dentist to further investigation in the extensive domain of medicine, and it would incite the general practitioner to extend his researches into a province which has hitherto been sadly neglected, but which is capable of yielding important contributions to the common store.





